THE

Horticulturist,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

The Management of large Country Places.

COUNTRY places that may properly be called ornamental, are increasing so fast, especially in the neighborhood of the large cities, that a word or two more, touching their treatment, will not be looked upon as out of place here.

All our country residences may readily be divided into two classes. The first and largest class, is the suburban place of from five to twenty or thirty acres; the second is the country-seat, properly so called, which consists of from 30 to 500 or more acres.

In all suburban residences, from the limited extent of ground, and the desire to get the utmost beauty from it, the whole, or at least a large part of the ornamental portion, must be considered only as pleasure-grounds—a term used to denote a garden scene, consisting of trees, shrubs and flowers, generally upon a basis of lawn, laid out with walks in different styles, and kept in the highest order. The aim in this kind of residence, is to produce the greatest possible variety within a given space, and to attain the utmost beauty of gardening as an *art*, by the highest keeping and culture which the means of the proprietor will permit.

Of this kind of pleasure-ground residence, we have numberless excellent examples—and perhaps nowhere more admirable specimens than in the neighborhood of Boston. Both in design and execution, these little places will, at the present moment, bear very favorable comparison with many in older countries. The practical management of such places is also very well understood, and they need no especial mention in these remarks.

But in the larger country places, there are ten instances of failure for one of success. This is not owing to the want of natural beauty, for the sites are picturesque, the surface varied, and the woods and plantations excellent. The failure consists, for the most part, in a certain incongruity and want of distinct character in the treatment of the place as a whole. They are too large to be kept in order as pleasure-grounds, while they are not laid out or treated as parks. The grass which stretches on all sides

of the house, is partly mown for lawn, and partly for hay; the lines of the farm and the ornamental portion of the grounds, meet in a confused and unsatisfactory manner, and the result is a residence pretending to be much superior to a common farm, and yet not rising to the dignity of a really tasteful country seat.

It appears to us that a species of country places particularly adapted to this country, has not, as yet, been attempted, though it offers the largest possible satisfaction at the least cost.

We mean a place which is a *combination of the park-like and pastoral* landscape. A place in which the chief features should be fine forest trees, either natural or planted, and scattered over a surface of grass, kept short by the pasturage of fine cattle. A place, in short, where sylvan and pastoral beauty, added to large extent and great facility of management, would cost no more than a much smaller demesne, where a large part is laid out, planted and kept, in an expensive, though still unsatisfactory manner.

There are sites of this kind, already prettily wooded, which may be had in many desirable localities, at much cheaper rates than the improved sites. On certain portions of the Hudson, for instance, we could purchase to-day, finely wooded sites and open glades, in the midst of fine scenery—in fact what could with very trifling expense be turned into a natural park—at $60 per acre, while the improved sites will readily command $200 or $300 per acre.

Considerable familiarity with the country-seats on the Hudson, enables us to state that for the most part, few persons keep up a fine country place, counting all the products of the farm-land attached to it, without being more or less out of pocket at the end of the year. And yet there are very few of the large places that can be looked upon as examples of tolerable keeping.

The explanation of this lies in the high price of all kinds of labor—which costs us nearly double or treble what it does on the other side of the Atlantic, and the comparatively small profits of land managed in the expensive way common on almost all farms attached to our Atlantic country-seats. The remedy for this unsatisfactory condition of the large country places is, we think, a very simple one—that of turning a large part of their areas into park meadow, and *feeding* it, instead of mowing and cultivating it.

The great and distinguishing beauty of England, as every one knows, is its parks. And yet the English parks are only very large meadows, studded with great oaks and elms—and grazed—*profitably grazed*, by deer, cattle and sheep. We believe it is a commonly received idea in this country, with those who have not travelled abroad, that English parks are portions of highly dressed scenery—at least that they are kept short by frequent mowing, etc. It is an entire mistake. The mown lawn with its polished garden scenery, is confined to the pleasure grounds proper—a spot of greater or less size, immediately surrounding the house, and wholly separated from the park by a terrace wall, or an iron fence, or some handsome architectural barrier. The park, which generally comes quite up to the house on one side, receives no other attention than such as belongs to the care of the animals that graze in it. As most of

these parks afford excellent pasturage, and though apparently one wide, unbroken surface, they are really subdivided into large fields, by wire or other invisible fences, they actually pay a very fair income to the proprietor, in the shape of good beef, mutton and venison.

Certainly, nothing can be a more beautiful sight in its way, than the numerous herds of deer, short-horned cattle and fine sheep, which embroider and give life to the scenery of an English country home of this kind.* There is a quiet pastoral beauty, a spaciousness and dignity, and a simple feeling of nature about it which no highly decorated pleasure grounds or garden scenery can approach—as the continual surrounding of a country residence. It is, in fact, the poetical idea of Arcadia, a sort of ideal nature—softened, refined, and ennobled, without being made to look artificial.

Of course, any thing like English parks, so far as regards *extent*, is almost out of the question here; simply because land and fortunes are wisely divided here, instead of being kept in large bodies, intact, as in England. Still, as the first class country-seats of the Hudson now command from $50,000 to $75,000, it is evident that there is a growing taste for space and beauty in the private domains of republicans. What we wish to suggest now, is, simply, that the greatest beauty and satisfaction may be had here, as in England—(for the plan really suits our limited means better,) by treating the bulk of the ornamental portion as open park pasture—and thus getting the greatest space and beauty at the least original expenditure, and with the largest annual profit.

To some of our readers who have never seen the thing, the idea of a park, pastured by animals almost to the very door, will seem at variance with all decorum and elegance. This, however, is not actually the case. The house should either stand on a raised terrace of turf, which, if it is a fine mansion, may have a handsome terrace wall, or if a cottage, a pretty rustic or trellis fence, to separate it from the park. Directly around the house, and stretching on one or more sides, in the rear, lie the more highly dressed portions of the scene, which may be a flower-garden and shrubbery set in a small bit of lawn kept as short as velvet—or may be pleasure-grounds, fruit and kitchen-gardens, so multiplied as to equal the largest necessities of the place and family. All that is to be borne in mind is, that the park may be as large as you can afford to purchase—for it may be kept up at a profit—while the pleasure-grounds and garden scenery, may, with this management, be compressed into the smallest space actually deemed necessary to the place—thereby lessening labor, and bestowing that labor, in a concentrated space, where it will tell.

The practical details of keeping the stock upon such a place, are familiar to almost every farmer. Of course, in a country place, only comely animals would be kept, and a preference would be given to breeds of fine stock that "take on flesh" readily, and command the best price in the market. In cases where an interest is taken in breeding cattle, provision must be made, in the shape of hay and shelter for the whole year

* All attempts to render our native deer really tame in home grounds have, so far as we know, failed among us—though with patience the thing may doubtless be done. It would be well worth while to import the finer breeds of the English deer, which are thoroughly domesticated in their habits, and the most beautiful animals for a park.

round; but we imagine the most profitable, as well as least troublesome mode, to the majority of gentlemen proprietors, would be to buy the suitable stock in the spring, put it in good condition, and sell it again in the autumn. The sheep would also require to be folded at night to prevent the flocks from being ravaged by dogs.

With this kind of arrangement and management of a country place, the owner would be in a position to reap the greatest enjoyment with the least possible care. To country gentlemen ignorant of farming, such an extent of park, with its drives and walks, along with its simplicity of management, would be a relief from a multitude of embarrassing details; while to those who have tried, to their cost, the expenses of keeping a large place in high order, it would be an equal relief to the debtor side of the cash account.

TRANSPLANTING TREES IN WINTER.

BY HENRY F. FRENCH, EXETER, N. H.

Dear Sir—Several subjects touched upon in your January number, seem to deserve further agitation, before they are allowed to go off the list as settled; and as the old Granite State is snugly ensconced under a covering of nearly three feet of snow, so that the plow and the spade cannot be about their appropriate work, I hold it the duty of somebody who lives in it, to make it manifest by the pen, that our people though nearly buried, are not dead.

Believing that the only way in which progress can be made in "Rural Art and Rural Taste," is by a free interchange of ideas among those variously situated, as to soil and climate, who are interested in such pursuits, I avail myself of your kind invitation, again to offer you some suggestions, not in the way of a regular essay or scientific treatise, but for the purpose of aiding to keep up among your readers, *a familiar conversation throughout the Union*, on subjects of mutual interest; and first, let me add to your collection, my own experience on the subject of

Transplanting Trees in Winter.—Right opposite the window by which I am writing, are four trees, two of the elm, and two of the red oak, averaging twenty-five inches in circumference, and thirty feet in height, which have taken their present position within the last fortnight. They really, even in winter, relieve the *rawness* of a new place so much as to surprise the initiated.

Your advice to your New-Haven correspondent, to expend his first labor in moving a few large trees, rather than in shrubbery and walks, would be followed by any man who has once seen the experiment tried. Moving large trees is like buying stocks with the dividends *on;* you get your return forthwith.

You and your Philadelphia correspondent estimate the expense of transplanting a tree of much larger size than mine, at five dollars. My trees were moved an average distance of about half a mile, and reckoning the labor of a man at one dollar per day, and that of a yoke of oxen the same, they were dug up, moved, and completely planted, for *three dollars each.* As my method of moving them seems comparatively cheap, I will give it to you in a few words.

Selecting a tree near the highway, we removed the snow and found the ground very little frozen. We then dug a trench entirely round the tree, two feet deep, and under it,

so as to leave a ball of unbroken earth, from six to eight feet across the top, and rounded on the bottom to the shape of the inside of a common washbowl, and then left it, still upright, about three days, until the ball was frozen. We then attached a rope to the tree, about fifteen feet from the ground, having first wound it with matting, to prevent galling. Four men, with double blocks and pulleys, were sufficient to bring its top to the ground, when a common ox-sled, covered with strong plank, was backed under, and chained so as not to slip. Then shifting our ropes, we pulled the tree upright upon the sled, at the same time slipping it by means of chains, round the mass of earth, with the oxen, into the required position.

Eight oxen were used to start the sled with the tree, out of the hole, and when fairly on the road each tree made a comfortable load for two yoke, being, as the teamsters expressed it, about as much *heft* as a cord of green hickory. We unloaded by supporting the top by means of the pullies, and slipping the bottom upon sticks of timber, directly from the sled into the hole previously prepared, at one pull with the oxen. Having carefully filled the space about the ball with the soil, protected by a covering of straw from freezing, and placed three strong props against the tree, to maintain its uprightness through the next season, I pronounce the work done, postponing the matter of pruning until spring. Our soil is a sandy loam, free from stones, and our teamsters and their oxen understand their business thoroughly, or we could not so readily perform our operations.

I should not have thought it worth while to trouble you with a repetition of a process so familiar with many of your readers, but half the world who *do* read, seem to have an idea, that those modern improvements are confined entirely to ink and paper, and are as much surprised to see them really practiced, as though they never had heard of them. A friend of mine came in his sleigh to see my trees in their triumphal entry into the village, and after satisfying himself with seeing, inquired in a somewhat confidential tone, "Now do you really expect these trees are going to *live*?" And, by the way, how very common, and how very pernicious is the idea, that if you can make a tree *live*, the whole object is attained. When *will* it be understood that

"It is not all of life to *live*,"

even for a tree; that to be entitled to any respect, the tree, as well as the planter, must occupy some position, either useful or ornamental. It must not only *live*, but grow and flourish, and look cheerful, and happy, and contented, in its new situation, and not as if it had experienced some recent bereavement, and were *looking back* with regret to its former estate, and half changed, like Lot's wife, into a pillar of salt, or something else as unlovely.

It is a very small part of the art of transplanting to make a tree *live*. I set some oak fence posts last spring, and they *lived*, and threw out shoots half a foot long.

A tree may *live*, though set so deeply that it will scarcely grow an inch for years. It may *live*, if its roots be badly mutilated, and the top left entire and unsupported; but if he who planted it lives also, long enough to watch the progress, he will see, perhaps, about half the limbs die the first year, and the tree looking decidedly *down street!* The second and third year he will see a few half fledged branches, and possibly some new shoots from the trunk, and by the next year he will conclude to cut the top off, as should have been done at first, or get discouraged and leave landscape gardening to those who have better *luck*. A tree, tall and slender, taken from the thick forest may *live*, but it will expend its energies for years, in streghtening its trunk and roots, before its top will expand; for nature spreads no more sail to the breeze than she can safely carry. I *do* expect forest trees,

properly *selected*, properly *transplanted*, and properly protected, not only to *live*, but to be immediately ornamental.

In December, 1848, I moved three elms, of about the same size as those above named, in a similar manner, and they have prospered finely. Last winter I moved a rock maple of about five inches diameter, which, without the loss of a single twig, went through the summer apparently without the least suspicion of having been disturbed during its winter sleep. That tree, however, had been something of a traveller in its youth. It was pulled up in the forest and planted in the garden by a sister, who gave it to me on her leaving the homestead, about fifteen years ago. In 1844, I brought it seventeen miles, and placed it by my house, where it grew six seasons, when I removed it with my other household gods, to my present residence. I saw in the summer of 1849, at Lexington, Mass., an elm a foot and a half in diameter, moved the previous winter, which succeeded admirably. On the whole, I am convinced that there is no method so sure and satisfactory, of moving large trees at the north, as with frozen balls of earth in winter.

"A Constant Reader," in your January number, who speaks of recently moving elms, maples, and *white pines*, says he *shortened them in* all over the tips of the branches. I very much doubt the expediency of thus treating the *pine*. Having at least *five hundred* now growing, which I have transplanted within three years, I have carefully observed the habits of the tree. Each branch has a leading shoot, surrounded at its base by about five other shoots. If the terminal bud or *buds*, (for there are in winter about half a dozen together,) of the leading shoot be removed, the whole shoot, I think, always perishes to its base. The surrounding shoots, it is true, will soon go into an election of a leader, and the successful candidate will finally *bend-in*, and take what the Irishman called *the middle extreme*, and the tree will go on and grow; but so far as I have observed, always with more or less deformity at the point of the mutilation.

My first experiment in setting white pines, was in June, after the trees had made most of their growth for the year. They *lived*, but the *new* wood all died, which had much the same effect as shortening-in. They were set in 1844, and still exhibit the ill effects of their trimming, having an ungraceful crook at every point where the terminal shoot was destroyed. I should prefer *upon evergreen trees*, to cut away whole branches, if necessary, although by removing trees of only five or six feet height, I have found it very easy to take earth enough with them to preserve the top entire.

Since my first experiment, I have moved the pine in early spring. I have found no tree so easy to manage successfully, as the pine, both white and yellow; and having originally planted them for mutual protection, much closer than they can properly grow, I have since moved them from place to place, in spring, with almost as much facility as a lady rearranges her parlor furniture.

I intended to say something, in this letter, on the subject of *pruning fruit trees*, but have already exceeded all reasonable bounds, and will not venture upon a new subject.

With much respect, HENRY F. FRENCH.

Exeter, N. H., Jan. 14, 1851.

[A most excellent article, which we commend to all owners of sites where the "genius of the bare and the bald," hold sway. Ed.]

A CHAPTER ON MODERN PEARS.

BY HON. MARSHALL P. WILDER, BOSTON.

Mr. EDITOR—I embrace the first leisure moment to respond to your request, and herewith subjoin a few extracts from my "Notes on Pears."

The unpropitious character of the two past seasons, has so seriously affected, not only the quantity, but the quality of our fruits, that I have been unable to decide so fully as could be desired, upon the merits of those recently introduced, or their adaptation to our climate.

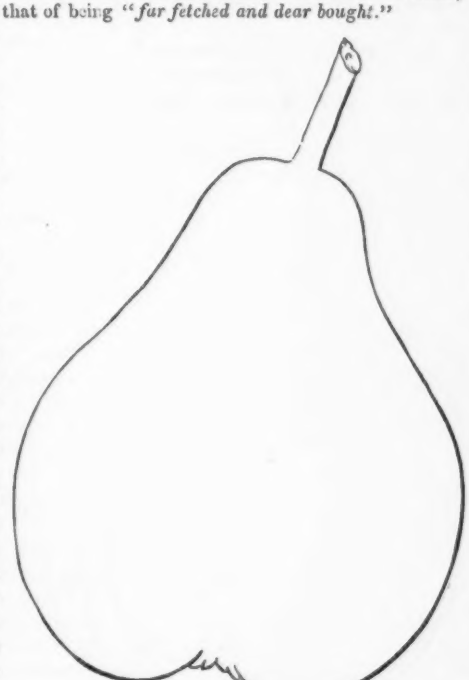
The year 1849, was distinguished for the destruction of the buds, which were, in the order of nature to produce the crop of that season, but whether the cause was attributable to the severe cold of the previous November, or to the sudden alternations of the weather in the subsequent winter and spring, has not yet been satisfactorily ascertained.

For many years previous, we had regular and fair crops of fruit. It was, therefore, confidently anticipated that the succeeding season would prove more propitious, and thus enable us to test the character of many new varieties, which have come to us under the influence of the "*pear mania*," from transatlantic gardens, and which, too often, have no other saving quality, than that of being "*far fetched and dear bought*."

In our expectations, we have been sadly disappointed, for, although the quantity was much increased over that of the year 1849, and the specimens in some instances of superior size and beauty, yet, on the whole, there has been a decided deterioration in quality.

The year 1850, has been marked with an unusual quantity of rain, causing excessive moisture and a low temperature, both unfavorable for the ripening of fruits, and to which cause may be attributed the immaturity and want of flavor so manifest in all the classes, a cause which has not only imparted to some of our finest kinds a watery and insipid taste, but has rendered the medium grades only fit for culinary purposes. So general has this been, that I have not at the present time, a single variety of the pear suitable for the dessert.

I regret that your call should be made under such unfavorable circumstances, and I shall, therefore, confine my descriptions to such va-

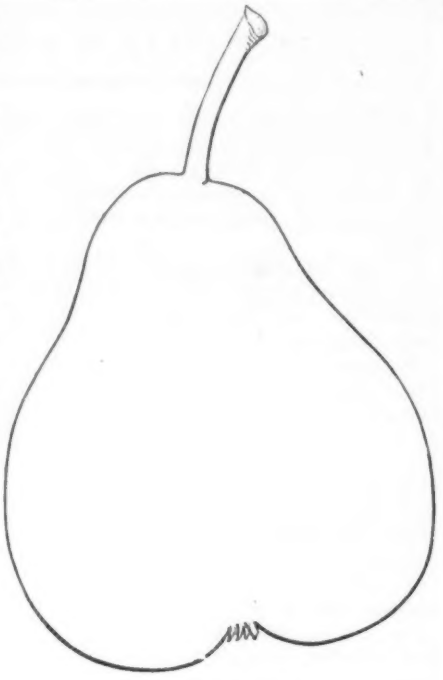


Nouveau Poiteau.

rieties of recent introduction as have given promise of excellence, reserving the right "*to amend*" as experience may hereafter dictate.

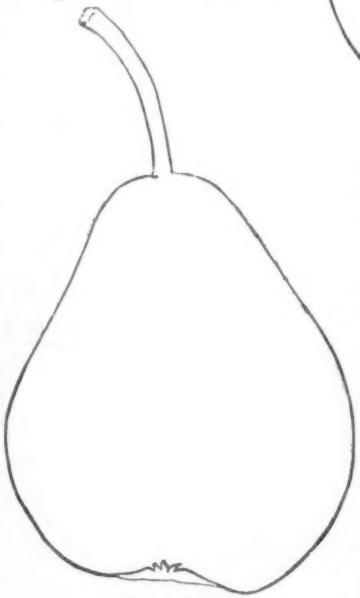
NOUVEAU POITEAU.—*Size*—large, three and a half inches high by two and a half in diameter. *Form*—obovate, obtuse pyriform, slightly contracted in the neck. *Stem*—short, rather stout, set a little on one side, and without depression. *Calyx*—medium size, open, with segments reflexed. *Color*—dull green, occasionally with brownish red cheek next the sun. *Flesh*—very melting and juicy. *Flavor*—rich, sweet and delicious, with melon-like aroma. *Season*—ripens early in November. *Quality*—gives promise of being classed with the "*best.*"

The Nouveau Poiteau is to all appearances, a desirable addition to our list of autumnal pears. The tree is of an upright vigorous habit, comes into bearing early, and succeeds well both on the quince and pear stocks.



Beurre Langlier.

BEURRE LANGLIER.—*Size*—large, three inches high by two and a half broad. *Form*—obovate pyriform, contracted in the upper part, and terminating obtusely at the stem. *Stem*—one inch or more in length, inserted without much depression, generally upright, but occasionally on one side. *Calyx*—medium size, sunk in coarsely plaited cavity. *Color*—handsome light green, assuming at maturity a pale yellow, with a dull blush or red cheek on the sunny side, and covered with numerous grey russet dots. *Flesh*—yellowish white, melting, juicy and fine grained. *Flavor*—sprightly, sub-acid, rich, excellent, with a little perfume. *Season*—December to January. *Quality*—"*very good*" to "*best.*"



Inconnue Van Mons.

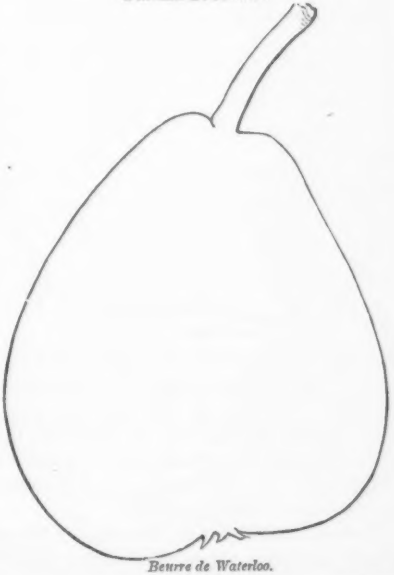
The tree is of a very strong vigorous habit, and succeeds well both on the quince and pear stock. The fruit adheres firmly until late in the season, keeps well, and promises to sustain its high reputation as a capital winter variety

INCONNUE VAN MONS.—*Form*—oblong-pyriform. *Size*—medium.—*Stem*—long, rather slender, one inch or more in length, and set without depression. *Calyx*—open, in abrupt, rather deep basin, frequently without segments. *Color*—dull pale green, over-spread partially with traces and dots of russet. *Flesh*—melting, buttery and fine. *Flavor*—pleasant, good, resembling a little the Glout Morceau, but without astringency. *Season*—December to February, keeps well. *Quality*—"*very good*," and will probably prove to be an excellent late variety.

It succeeds well on the quince stock, and from which the fruit is much larger and finer than from standards.

Fondante De Malines.

FONDANTE DE MALINES.—*Size*—medium, 2¼ inches long by two and a quarter in diameter. *Form*—roundish obovate. *Stem*—long, set without depression, sometimes curved. *Calyx*—small, in a narrow furrowed basin, and frequently without segments. *Color*—pale lemon yellow, slightly marked with patches and traces of cinnamon russet, and with brownish red intermixed with distinct spots of vermillion on the sunny side. *Flesh*—white, buttery and melting, a little granulous near the core. *Flavor*—sweet, excellent. *Core*—rather large. *Season*—last of October. *Quality*—promises to be classed as "*very good*." A handsome fruit.



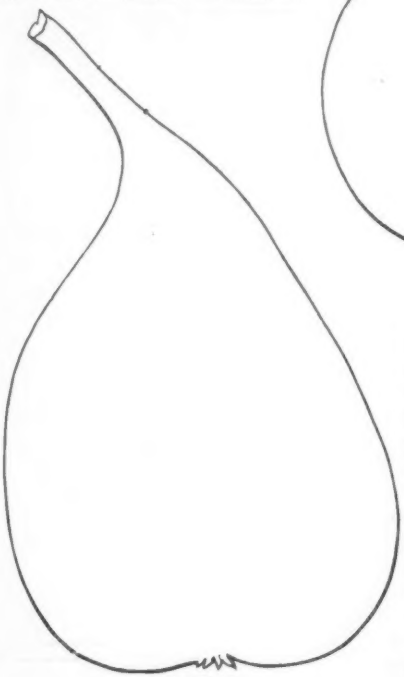
Beurre de Waterloo.

BEURRE DE WATERLOO.—*Size*—large, three inches high by two and a quarter in diameter. *Form*—obovate, obtuse py-

riform. *Stem*—set without much depression, on one side. *Calyx*—open, in shallow furrowed basin. *Color*—dull green, skin rough, covered with coarse russet traces and points. *Flesh*—melting and juicy. *Flavor*—sprightly saccharine, pleasant. *Season*—Middle of October.

Beurre Andusson

Beurre Andusson.—*Size*—medium, two and a half inches long by two and a half inches in diameter.



Saint Nicholas

Form—obovate, acute pyriform, tapering rather abruptly into the stalk. *Stem*—short, stout, fleshy at the point of junction, set in an irregular manner. *Calyx*—large open, in a shallow basin. *Color*—yellowish green at maturity, with a dull red cheek on the sunny side, and covered with numerous russet dots. *Flesh*—melting, tender, juicy. *Flavor*—rich sub-acid, slightly perfumed with rose. *Season*—ripens from the first to the fifteenth of October. *Quality*—"*very good.*"

Saint Nicholas.—*Size*—large, three inches and a half long by two and a quarter in diameter. *Form*—oblong pyriform, the flesh tapering gradually into the stem. *Stem*—short, thick, wrinkled at the base, curved. *Calyx*—small, open, in broad flat basin. *Color*—greenish yellow, clouded with a thin covering of russet. *Flesh*—melting and juicy. *Flavor*—rich sub-acid, slightly perfumed, with some astringency next the skin. *Season*—October, first to fifteenth. *Quality*—"*very good.*"

Should this variety prove good as a standard, it will be a desirable market fruit. The French catalogues describe the size of the Saint Nicholas as "*petit*," *small*, but it has here uniformly borne *large* fruit.

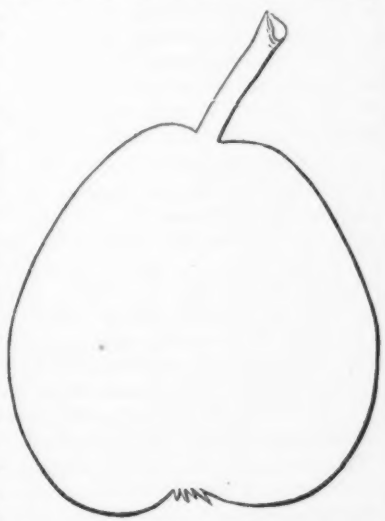
Doyenne Gris d'Hiver Nouveau.—*Size*—rather below medium. *Form*—obovate, obtuse, pyriform. *Stem*—short, stout, inserted in a slight depression. *Calyx*—very

small, in narrow sunken cavity, often without segments. *Color*—dull russety green, profusely covered with coarse russet dots. *Skin*—rough and thick. *Flesh*—tinged with orange, coarse grained, but melting and juicy. *Flavor*—sprightly, vinous, good, slightly astringent near the skin. *Season*—keeps easily to May or June, ripens readily, and is free from the objections which rest against some of our latest varieties in this respect.

Doyenne gris d'hiver Nouveau.

Souvraine d'Ete.—*Size*—medium.—*Form*—roundish obovate. *Calyx*—open, medium size, sunk in moderately deep basin. *Stem*—short, inserted a little on one side, and without much depression. *Color*—lemon yellow, traced and dotted with light russet, and frequently with a bright red cheek next the sun. *Flesh*—melting, tender, and very juicy. *Flavor*—sprightly, a little vinous, rich. *Season*—ripens the last of August. *Quality*—"*very good.*" A handsome fruit.

Howell.—The Howell Pear is one of the most beautiful in cultivation. It was raised from seed by a gentleman of that name, at New-Haven, many years since. From the experience of three or four years, this variety gives promise of sustaining a high reputation. *Size*—large, three inches high by two and three-fourths broad. *Form*—obovate, obtuse pyriform, contracted towards the stem, surface a little irregular, like the Thompson. *Stem*—one inch or more in length, often curved, and set without de pression. *Calyx*—medium size, open, sunk in a moderately deep irregular cavity. *Color*—at maturity, clear pale yellow, covered with numerous small russet dots, and occasionally with a faint red blush on the sunny side. *Flesh*—melting and juicy. *Flavor*—rich, slightly acidulous, with a delicate aroma. *Season*—ripens from October first to fifteenth.

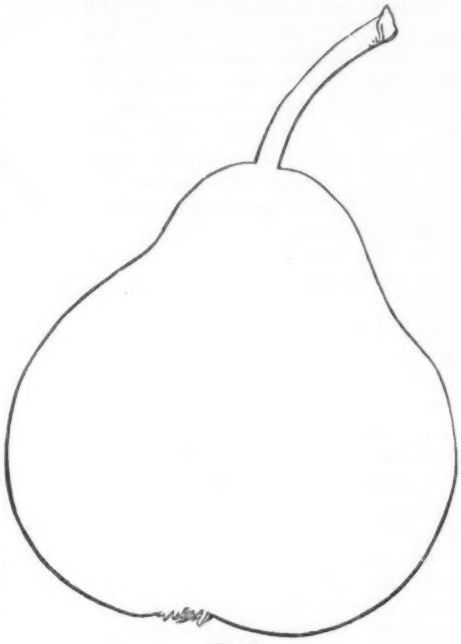


Souvraine d'Ete.

Triomphe de Jodoigne—*Size*—extra, weighing from ten to twelve ounces. *Form*—obovate, slightly pear shaped, terminating obtusely at the stem. *Color*—green, with occasional traces of russet. *Flesh*—melting, rich sub-acid, good. Ripens in November. The tree of this variety is exceedingly robust, but does not come into bearing so early as many other sorts.

Beurre Sprin.—*Size*—medium. *Form*—obovate, obtuse pyriform. *Color*—pale yellow, slightly traced with russet, and with occasionally a blush cheek. *Flesh*—melting, juicy, rich, with a peculiar aroma. *Season*—October.

Smith's Bordenave.—This variety was imported from France into Hartford, Ct., many years since, and has been somewhat extensively distributed by Alfred Smith, Esq., of that city. The fruit is of medium size, acute pyriform in shape, with a dull greenish russet coat. The flesh is juicy and buttery, and the flavor peculiar, sprightly and spicy. The true or original name, is yet unknown. Ripens about the middle of September. A valuable acquisition.



Howell

Beurre Bretonneau.—A large handsome fruit, ripening in December or January. The flesh is melting, high flavored and excellent, promising to add another fine sort to the winter varieties.

Soldat Laboureur.—Fruit large, resembling the Beurre Diel in form, but a little more depressed at the stem. Flesh, melting and buttery, with a little perfume. Ripens from December to February. This is a distinct variety, raised by Maj. Esperen, of Malines, a hardy and beautiful tree, and must not be confounded with the Soldat Laboureur of the French, or Beurre d'Aremberg.

Beurre Superfin.—This variety received a special premium at Angers, in France, for its excellence. The fruit is represented as very large, but with me it has not attained a larger size than the Louise Bonne d'Jersey. Color, dull pale green, with traces and patches of russet, and dull brown cheek. Flesh, juicy, melting, and with slight aroma. Ripens from the middle of September to the first of October.

Beurre Sterkmann.—Size, medium. Form, obovate pyriform. Color, dull greenish russet. Flesh, juicy, melting. Flavor, rich sub-acid. Ripens in November.

Among others whose characteristics give tokens of excellence, may be named: *Doyenne de Nerckmann*, ripening in November—*Beurre Scheidwiller*, in October—*Calinka*, a fine large yellow fruit, in December—*Beurre Benoist*, in October—*Beurre Giffard*, in August—*Baronne de Mello*, in October—*Fondante de Millot*, in November—*Bon Parent*, in October—and *Marechal de la Cour*, in November.

The above are all worthy of consideration, and to which I might add others; but under the unfavorable circumstances to which I have alluded, I refrain from further descriptions, not being confident that those already submitted will conform to the characteristics which these varieties may assume, under the influence of more congenial seasons.

Before closing this article, which has now been extended beyond my original design, permit me earnestly to recommend the practice of raising new varieties from seed, a practice which I am happy to inform you, is becoming quite general in this region. When this branch of cultivation shall be more perfectly understood, I entertain no doubt but we shall be able to produce varieties rivaling in excellence the most celebrated foreign fruits. In support of these views, we might name among the instances which have been crowned with success, the efforts of Mr. FRANCIS DANA, of Roxbury, who has the past year, from promiscuous seed, fruited three varieties of pears of good character—two of which are entitled to particular commendation; one an early, the other a late sort. The Messrs. HOVEY have also presented this season, a native variety of great beauty, and of fine quality, which promises to rank among the best of our early pears.

Unfortunately, the passion for new fruits, has placed so many under cultivation, that we are scarcely able to do justice to all. Instead of transferring, at once, scions of foreign varieties to healthy and mature trees for trial, our conclusions are too often drawn from imported trees, which are not fully established, or perhaps not adapted to the stock upon which they have been grafted.

During the past two years, we have witnessed the disastrous effects of unfavorable atmospheric influences. These are chiefly beyond our control; but cannot the other ills which vegetation is "heir to," be provided against? Cannot the tendency to deterioration, now so generally complained of, be arrested, and the pristine beauty and perfection of those fruits which were once the pride of our gardens, but now remembered only as "out-casts," be restored, and perhaps maintained? Science has wrought wonders in other departments of knowledge, and why should it not aid the pomologist, as well as the manufacturer or the mechanic? Doubtless it can; but our efforts must be governed by the laws of nature—for, if there *are* scientific principles upon which terraculture is founded, then no practice which is not based on these principles, can be depended upon with any certainty for success.

Your readers will excuse this digression, but in view of your being about to address the good people of the Empire State on the great subject of Agricultural Education, I cannot refrain from expressing the hope, that not only New-York, but other states, will take up this matter in earnest, and establish such systems of instruction as shall enable the cultivator, whether in the garden or in the field, to take his place by the side of the most favored class in the progress of improvement, for which our age is so distinguished.

MARSHALL P. WILDER.

Boston, Jan. 10, 1851.

REMARKS ON LEAF BLIGHT.

BY H. E. HOOKER, ROCHESTER, N. Y.

THIS disease, which has by some been mistaken for the *fire blight*, and by others deemed worthy of so little attention, that few notices of its presence, or hints for its destruction, have appeared in your magazine, is, I am persuaded, productive of more injury to nurserymen and those amateurs who undertake the propagation of their own pear and plum standards, than the *genuine* fire blight.

I propose, therefore, to state some of my views on the subject, hoping that brother nurserymen, at least, will give the readers of the Horticulturist the benefit of their experi-

ence; as I doubt not all of them have consulted their own interest sufficiently to make some experiments upon the matter.

The disease in question makes its first appearance in the shape of small brown spots or blotches, upon the under side of the lower leaves of the trees affected; from thence spreading rapidly to the neighboring leaves and branches, and gradually destroying the foliage, from the bottom upwards, until finally the plants remain leafless, or nearly so, in midsummer or early autumn. They usually attempt a second growth the same season, but the result is only a feeble, sickly shoot, which also sheds prematurely its leaves, and mournfully waits for another season of similar attempts and like success: its spindling branches and thorny stock, giving but poor encouragement to the cultivator, that his utmost skill with budding or puning knife, will cause a vigorous shoot to appear form its hide-bound stem, or induce his puny seedling to assume an air of health and beauty. Alas! bitter experience satisfies him that hope for leaf-blighted stocks is of that character which "makes the heart sick."

Its attacks are not entirely confined to small seedlings or *nursery* trees, although it is to these that it is most injurious; nor does it limit its depredations to a single town or state; from Belgium to Iowa, its presence is almost universal in grounds which have for any considerable length of time been devoted to the cultivation of pear and plum trees; sometimes a bearing tree is the object of its attention, in which case, a leafless tree in August, with immature and blackened fruit, is the reward of the waiting cultivator; a sorry remuneration to one who has expended his time and patience in catching "Turks," or pinching his pyramids; in cutting off knots, or watching for the first symptom of the fire blight; but as it is not often that its choice falls upon the orchard or standard tree, I shall confine my present remarks to its ravages in the nursery.

It is a fact well known to most nurserymen, that this disease has been the cause of more failures in the rearing of pear and plum trees, both in the nursery row and the seed bed, than all other causes combined. The stock which is attacked becomes impracticable to the budder before the season arrives for inoculation, or if, perchance, he is able to raise the bark sufficiently for his purpose, the languid state of the plant renders his efforts almost useless; and even when he succeeds in working the refractory subject, those which have been severely attacked make, at first, but an indifferent growth. The injury is not always nor commonly *mortal*, for stocks which have been attacked, appear after working, to recover their health, and finally to make as good trees as others; but the delay and vexation to the nurseryman is intolerable.

In the seed bed, he first discovers small patches, where the smaller and weaker plants have a brownish appearance, and are shedding their lower leaves, which patches increase in size, until the whole bed looks as if a fire had passed over it. If it is his first acquaintance with the pest, he consults some author on fruit trees, but finds no disease treated of which answers the description, and consoles himself with the idea that it will soon disappear; or, perhaps, he applies those universal remedies, lime and ashes, but with no good result. Some afflicted cultivators have, in their desperation, applied salt to their suffering subjects, until the entire disappearance of foliage convinced them that even salt was unable to save. Perhaps he consoles himself with the idea, that when he has them dibbled out in nursery rows, this trouble will be over. But another season's experience convinces him that whatever ailed his stocks, they have carried their ailment with them, and seem determined to perpetuate the indisposition, by giving it to their neighbors.

My observations lead me to the belief, that whatever be the cause of this difficulty, it is *not* to be found in the work of an insect. The most critical examination which I have

been able to make, has revealed neither insect nor egg, but only a species of rust, or fungus, which spreads over the surface of the leaf, and closes the pores, thus producing death.

I am also convinced that it is exceedingly infectious, and that when once a patch of trees has been affected, there is but little hope to the nurseryman, that he will be entirely free from it on that piece of ground. It is also pretty certain, that stocks which are diseased in the seed bed, will carry the complaint with them to the place where they are planted out; but this last result will not always follow—I have, myself, known one (and but one) instance, in which leaf-blighted seedlings, which were removed far away from other trees, recovered entirely their proper health and beauty.

It is impossible to raise pear or plum seedlings which shall be entirely free from this disease, in an old nursery, by any method of prevention or cure which is known to us; most of the old established nurseries have, therefore, depended in a great measure upon purchasing this species of stock, and as its attacks do not seem permanently to injure good sized plants, they are thus enabled to supply their customers with trees, which, when removed to the fruit yard, or the orchard, give entire satisfaction.

One peculiarity has probably been observed by all who have examined this subject, which is, that budded or worked trees are comparatively free from attack; these often retaining their foliage unspotted, and continuing to grow rapidly, while their natural or seedling neighbors are leafless. Why the *leaves* of our most esteemed varieties are able to withstand attacks which are fatal to those which we are accustomed to believe are more hardy than they, I am at a loss to determine.

The cause of so great an evil as this, deserves, of course, our best attention; but it is still a profound mystery; it makes its appearance without warning, and has no fore-runners, no busy hum of insect, nor endless throng of aphides, ushers in the work of destruction. It cares not for rain, nor does the mighty wind check its steady progress; sunshine and cloud seem to favor, and darkness to offer no obstacle to its work of desolation; lime and ashes, plaster and guano, are but aggravations; even copperas water, and filthy whale oil soap, are alike agreeable to the mysterious visitor; like the unseen malaria, it is known only by its effects. A friend who has some acquaintance with it, believes the potatoe rot has attacked his little pear trees.

The *cure* has not yet transpired, but there is much hope in *prevention;* my own observations lead me to recommend the planting of pear and plum seeds, and stocks, at a distance, say at least half a mile from any other nursery; the superior advantages of a virgin soil, combined with freedom from adverse influences, will generally be sufficient to ensure at least one healthy crop. Probably many old nurserymen have observed, that beginners usually have their best success (with these trees) first; after this their progress is like that of others, somewhat variable, and against obstacles, of which leaf blight is the chief.

Shall we not hear from others upon this subject, which, although of little consequence to the orchadist, is eminently worthy the attention of nurserymen. H. E. Hooker.

A very interesting article to all the cultivators of the pear, and one which we hope will elicit the remarks of other correspondents. We examined the spots, caused by this leaf-blight, last summer, under a powerful microscope, and are satisfied that, as Mr. H. suggests, they are caused by a fungus. And this has led us to suspect that the cracking and blight of many varieties may be merely the effects of this same parasite. We have noticed a tree loaded with the finest crop of Brown Beurres, looking as fair and promising as possible till midsummer. Then suddenly the leaf-blight would attack the foliage—small

spots and an occasional crack would appear upon the fruit, the pears would cease to swell, and the whole crop would prove an utter failure. Was not this failure of the crop the immediate effect of the attack of this fungus called the leaf blight, and is not this fungus the partial cause of the so-called decline of some of the old varieties? Further observation will establish the truth of these conjectures if they are correct, and as the attacks of fungi are not past prevention, we hope something may also be discovered to answer this purpose. At any rate, this is an important subject of investigation.. Ed.

REMARKS ON THE DEGENERACY OF FRUITS.

BY A. MARSHALL, WESTCHESTER, PA.

There is an opinion prevalent with some pomologists, that fruits of various kinds, apples and pears for instance, degenerate by a continuation of grafting or budding, through a long series of generations, and that new varieties obtained from seed are not subject to this degenerating process, until the variety has been long cultivated and propagated by buds or branches.

They say—that propagation by grafting or budding is a continuation of the original tree of the particular variety thus propagated. That is—all the Baldwin Apple trees now growing in the world, are parts and parcels of the original Baldwin Apple tree grown in the state of Massachusetts, and that the ages of those trees are not to be counted from the times they were respectively grafted or budded, but from the time the seed germinated that produced the original tree of that name; that at some future period of time, (not very well ascertained,) this variety of tree will produce degenerate fruit; that the quality of the fruit can never be brought back to its primitive character, because of the age of the parent tree. Yet a seed of this degenerate fruit grown on a tree whose parentage may be traced back two or three centuries, will produce a new variety possessing distinct characteristics; that it will retain those qualities until it arrives at a certain age, when its degeneracy will commence also.

Although this theory has strong names in its support, some of whom have, no doubt, received it on trust without investigation—I have never seen sufficient evidence in the facts relied on, to convince me of its truth.

A particular variety of the apple, (called new,) is discovered in a new settlement, growing on virgin soil; the fruit is large, handsome, and of good flavor. It becomes a favorite, and is extensively propagated by budding or grafting, and spread over large districts of country. The soil on which this variety was first discovered as a "seedling," is cultivated, cropped, and impoverished—manures are applied—the soil is improved and strengthened—it again produces good crops of corn, wheat and grasses; but this apple, (now called old,) does not exhibit its former fair proportions and other praiseworthy qualities. It is condemned as a worn-out, degenerate variety, and the only reason assigned for thus giving the cold shoulder to an old friend is, that it has been legitimately propagated through a long series of generations. Such a reason for casting off an old friend is very easily gotten up, and may be made to assume a very plausible shape.

Now let the "rejected" apple tell its own tale of woe. "My ancestors were highly prized by your fore-fathers. Both flourished together in primitive times. The virgin soil furnished our family with plenty of such food as suited to produce our then fair proportions and peculiar flavor. That soil was cropped and impoverished by your relatives, un-

til many of them were obliged to go to the far west to obtain their bread—those who remained behind were compelled to resort to artificial stimulants, which entirely changed the nature and relative properties of the soil, so that we were unable to obtain those particular particles of food which, in former days, contributed so largely to give us that peculiar flavor and other valuable properties which we then exhibited. Let me tell you in all candor, before we part forever—that if you will place our family in a soil and climate congenial to our taste and constitutional habits, similar in every respect to that in which our ancestors flourished with so much credit, we will engage to redeem our reputation. The younger members of our family are as sound in stem and branch, as ever our ancesters were. Give us the same food to eat, and climatical air to breathe, and we will produce as good fruit as they ever did."

The pomologist here cuts the argument short by saying—"You are an old superanuated variety—we have tried you too long already—you have set 'our children's teeth on edge'—we will have nothing to do with you—our *Pomological Congress* has *rejected* you, and that's enough! Here is a new seedling variety lately brought to notice by an eminent nurseryman, who has thousands of them for sale. His price is rather high, to b sure; but then our Pomological Congress has recommended it, and I guess they know what's what about good or bad apples."

"Why bless you"—says the rejected apple—"I know all about *that seedling*. A boy, after having eaten an apple of our variety, threw the core containing the seed, in a hedge by the way-side. A tree grew—the fruit had some good properties, and accidentally fell into the hands of a pomologist, who gave it a high sounding name—set it afloat on a popular current, and the wind so far, has been in its favor."

That some varieties of fruit do not succeed so well in localities differing in soil and climate from those in which they originated, is a generally acknowledged fact, clearly demonstrated; but that fact has nothing to do with the question of *degeneracy*.

The Baldwin Apple is considered good in every respect in the state of Massachusetts. Grafts taken from those trees and cultivated in the southern part of Ohio, produce fruit subject to the "dry rot." Grafts taken from those dry-rot fruit trees in Ohio, and cultivated in Massachusetts, produce fruit equal to those trees which remained at home. Does this prove degeneracy?

It is said that the stock on which a graft is worked has an influence on the fruit. I acknowledge that it has individually, but not generally. The Angouleme pear, worked on the quince, slightly changes the fruit for the better. But take a bud from the Angouleme pear on quince, and work it back on the pear stock, and there is no difference between its fruit and the Angouleme that has always been worked on the pear stock. This explains what I mean by the influence being individually, but not generally.

Mr. DOWNING, in his work on "Fruits and Fruit Trees of America," speaking of the White Juneating Apple, says—"this is an old variety mentioned by Evelyn in 1660, and described by Ray, in 1688, and is a very tolerable little apple." p. 78. Of the Golden Pippin, he says, "It is a very old variety, being mentioned by Evelyn in 1660, but it thrives well in many parts of England still." p. 112. Of the Canada Reinette, he says, "It is doubtful, notwithstanding its name, whether it is truly of Canadian Origin, as Merlet, a French writer, describes the same fruit in the 17th century; and some authors think it was brought to this continent from Normandy, and carried back under its new name. At any rate, it is a very large and handsome fruit, a good bearer, and of excellent quality in all respects." p. 129. Of the Bartlett pear, he says, "It is an English variety, originated about 1770." p. 334.

Some of our pomologists complain, that certain varieties of fruit are not so good now as when they were little boys. Perhaps the difference is in the taste and judgment of the *boy* and those of the *man*.

I believe that a sound healthy graft, taken from a vigorous tree in perfect health—worked on a seedling stock of the same genera, grown in similar soil and climate—thus reproduced for ages, will never degenerate. That the degeneracy complained of, is in the soil and cultivation—not in the tree or its fruit. A. MARSHALL.

West Chester, Chester County, Pa.

NOTES ON THE DISEASES OF FRUIT TREES IN THE WEST.

BY PROFESSOR TURNER, ILLINOIS COLLEGE.

DEAR SIR—I confess my delinquencies as a correspondent; but I have been unusually engaged this past fall in attending Institutes and delivering lectures on the "*Education of the Industrial Classes*," in neighboring counties, as well as in an unusual pressure of business at home. When I have pushed the matter a little farther in my own state, I shall probably have a word to say, with your leave, through the Horticulturist on this theme.

I see favorable notices of your work on "Country Houses," on all sides, and I have never known a book in the west receive so universal a commendation from all classes and professions. As there was, for some time, no other copy to be had here, I loaned mine until I was obliged positively to refuse to loan it any more, to keep it from being worn out by others.

There are no less than five houses built, or being built, after your models in this village already, all taken from this book; and I think when completed, they will be almost the only tasteful houses in the place. For myself, I may say I expected a good work, but so far as the architecture of *houses* is concerned, it is at least much more in accordance with true principles of taste, and much better adapted to meet the wants of the country, and the age, than I could have believed forthcoming in the present state of both the art and the science in this country. And for this, as well as for much else, we Americans owe you our sincere and hearty thanks. I think it ought to be placed on the table of every man who has a family, in the United States, and if so, it would do more to improve their taste, and indirectly to form their morals and manners, than four times the same money expended in the ordinary methods of teaching the "young idea how to shoot." It is a book, too, of first lessons, regarding the very place where all instructions should begin—"home." But I must proceed to my annual report; and first—

APPLES.—There has been throughout this state, an unparalleled blight in the tops of apple trees. At first I thought it was the *Scolytus Pyri*, or some similar insect. But I have never been able to obtain the least proof of the existence of an insect, or to find any marks of his ravages whatever, and many facts induce me to think it is not an insect.

Nor was there any unusual drouth or severity of winter that could have produced it. The winter was so mild and favorable here, that tender shrubs never stood it better, and the ground at the time of the blight, was unusually moist for that season of the year. The springs were higher than they are now, or have been since.

Indeed, the season has varied from ordinary seasons so far as I know, but in one single respect. It was generally quite cool until Jul·, after which we had an unusual number

of *excessively hot days*, the thermometer ranging from ninety to one hundred degrees in ordinary exposures, and from one hunded and thirty to one hundred and forty degrees in the *sunshine*, through at least two days, when I noticed it. Still, in alternate days, it frequently and suddenly sunk several degrees. Did the excessive heat, or the sudden changes, or both, or neither, do the mischief? I cannot tell. At any rate, there was scarce a terminal branch of an apple tree in this county that was not more or less affected, and some of them several feet down below the last years growth. On my grounds, it affected young nursery trees from one to three years old, worse than older trees. At first, the leaves near the end turned black, and usually, by cutting the stem, a black and dead spot would be found below the dying leaves, of greater or less extent. Sometimes these black patches of bark and wood, would be found at some distance below any dead leaves, but the leaves were sure at last, to die down to that point. But it passed away without any serious injury to the trees, so far as can now be seen.

People talk and write, as I have done, about "the blight," but I am convinced that this form of blight has never been in this part of the country before—whether caused by heat, or cold, or insects, or what not.

PEARS.—On pears this blight was more injurious by far. The branches not only died down to the lowest black spot, as was the case with the apple, but they continued to form black spots of bark still farther and farther down, even to the ground, when not arrested by amputation. It is worthy of remark here, that I had six pear trees, not grafted, upon whole seedling roots, and only six; of these, five out of the six, some ten years old, were almost entirely ruined.

The one not injured, in the spring I filled with sulphur, by putting it in a half inch hole, as I did some of my plum trees, merely to see if it would correct the disease of the leaf, of which I spoke in a former communication. Whether this did any good or not, I know not; but the fact was, every tree around it was sadly injured, while it *wholly escaped*.

Again, of several hundred plum trees in the same lot, known to be grafted on "entire seedling" roots, not one was in the least degree affected with the blight through the season, though many of them stood in the midst of a young nursery of apples, all of which were more or less dead in their terminal branches. It should be noted, however, that *a part* of these trees were plentifully supplied with ashes, bones, &c., when they were transplanted several years ago—though not all of them.

Toward the latter part of the season, I began to suspect that the disease in the pear tree was analogous to the erysipelas in the animal system—and as I had got tired of amputation, I cut away all the dead corticle, or outer bark, as fast as it appeared, and left the inner bark untouched. The inner bark in such cases lived, and I see is alive now. On one tree, there was a blotch on the trunk two feet long, and some four to six inches wide, in which the cuticle appeared entirely dead, while the inner bark was fresh. I proceeded on the same principle as physicians do with erysipelas, and arrested the progress of the blotch, and thus far saved the tree. How it will do in the spring, I cannot say. I am sure this disease is unlike anything I ever saw before, and I am inclined to think it is of atmospheric origin, or proceeds from the presence of animalculæ, and that it progresses by the same general law as erysipelas in the human system, and that peeling the dead corticle off as soon as it appears, and applying a weak alkaline wash, will arrest its downward and fatal progress; and also, that sulphur, as applied to plum trees for the curculio, may prevent it, if done early in the season. But I only make these suggestions in the hope that they may stimulate others to a more extensive and satisfactory investigation of the facts in the case. All theories which I can form, are as yet quite unsatisfastory, while

many of those proposed, are entirely at war with the facts as they appeared here, though they may apply well elsewhere.

By the way, the erysipelas has appeared more fatally in the human subject in these parts, within a few years, than was ever before known. Do the same atmospheric or other causes, conduce to both diseases in the animal and vegetable world? Let us observe and inquire. At all events, if no remedy is found, it will be useless to attempt to cultivate pears in this western country.

It should be noticed, however, that the only pear trees of twenty or twenty-five years old, in this vicinity, have stood for many years in an *unbroken sward* of blue grass, which is *hard* and *compact*. Some of these trees were somewhat blighted at the top, but far less than younger trees differently situated. One seedling tree in the same lot,.standing in a cultivated garden, about fifteen years old, showed *not a single blighted leaf*, while all others near it were blackened more or less.

It is certainly true here, that trees grafted upon *entire seedling roots*, and trees standing in a hard, tough, blue grass sward, have escaped all forms of blight as yet, far better than others, [which is partly owing to their making very moderate growth—instead of running into over-luxuriance, and partly to the grass protecting the roots from excessive changes—like mulching. Ed.]

The blight to which I alluded in a former paper, and which has heretofore prevailed here, starts from the south-west of the trunk and large branches, and spreads both upwards and downwards, while the leaves are still unaffected; and seems precisely like that form of blight which is described by your correspondent as killing his apple trees in Mobile, in the December No. of the Horticulturist. I cannot have been mistaken in calling this form of blight a *severe scald*—the facts here abundantly prove it. Beside, how do your advocates of the frozen-sap theory, account for the above case. *Does frost kill apple trees in Mobile?* I apprehend they would be killed still worse in the same way, farther south, if their trunks were exposed to the scalding sun, continually drying the liquid sap into solid gum. But while the blight of former years thus began, and appeared to spread like a general mortification of the animal tissues, the blight of this year appeared to begin on or near the extreme twigs and small branches, at once affecting the leaves, while still the trunk and large branches were entirely sound—and spreading mostly downwards, first on the outer bark, like erysipelas, and not by a general simultaneous blackening and gangrene of the interior tissues, as in the other case.

Again, it frequently began on the most shady side of the tree, even where the sun never shown upon the branch; and while extreme heat is the only *known* cause to which I can ascribe the disease in this latter case—still it operated by producing a general paralysis of the functions of the cuticle, if at all, and not by a sudden scald of a particular part of the trunk, as in the former case. I have been thus particular and tedious, because it is, in my present view, as absurd to suppose all blights in trees are alike, as it is to suppose all fevers and inflammations in men and animals alike. It is true, a blight is a blight, and so a fever is a fever, whether produced by cold or heat, or miasma or surfeit, or starvation; but physicians find it quite convenient, after all, to distinguish between fevers and their causes, before they prescribe remedies—and that both frost, and heat, and miasma, and animalculæ, and surfeit, and starvation *may*, in different localities produce different modes and forms of this *baleful pear tree fever*, has at least, been rendered sufficiently probable to awaken suspicion and inquiry. Let us try, therefore, to obtain accurate descriptions of its *forms* and *modes* in different places and seasons, as the only sure first step in a truly philosophical investigation. It is certainly, however, about as dangerous here to

trim a pear tree, or disturb the blue grass sward around it, as it would be to trim a boys' nose, hair and ears off, and lay him out naked to roast, in a hot summer's sun, thinking thereby to make him grow faster, or into better shape. To say nothing of our horticulturists, our most ordinary observers now know better here, though in many cases their knowledge cost them more than it is worth, for their trees are all gone.

QUINCES AND PLUMS.—Quinces have been affected also, by a similar blight, not so fatal as to the pear, but more so than on the apple, which soon recovered of their own accord, and bore their fruit as usual.

For two years I have put sulphur in a few of my plum trees, and have got some fruit from those trees alone. I think as sulphur is usually put into the trees, it can be of no possible use. A hole is bored, a little sulphur thrown in, perhaps half filling the hole, and stopped with a loose plug. Of course the air soon dries up the pores about the hole, and no part of the sulphur is absorbed and carried up with the sap. I have tried this mode several times without the least success. For two years past, suspecting what might be the cause of failure, I have proceeded more cautiously, and all I can say is, on those trees I had some fruit, on others none at all. I first bored a smooth half-inch hole, with a sharp center-bit, *almost* through the sap wood. I then took fine sulphur, in a half-inch gouge, and with a round stick crowded the hole as full of this substance as it could be pressed, up to the point I wished my plug to reach. I then fitted the plug with entire accuracy, so as not to split the bark, while it still pressed hard upon the sulphur, and excluded all air from the hole. I then sealed the outside fast with grafting wax, so as to exclude air from without. Of course, if the sulphur is pushed into the heart-wood, or if the air come into the hole it can do little or no good, as it cannot be absorbed.

I suspect also, that after the sulphur is pretty well absorbed, so as to leave the hole in part vacant, the effect must cease, and as I did not repeat the process, it may be that was the reason why many of my plums were at last stung by the curculio. Still, here again I consider nothing proved, only let us "keep trying." But as this process would naturally be ordinarily performed, it is evident it must utterly fail, even if good in itself. Let it be performed on both sides of the tree with *great care*, and repeated once in two weeks, or so—or once a week—and then it would be fairly tested. Let us also try with care, some more soluble minerals, or salt of iron, copperas, &c.—finely pulverised—and carefully inserted. Probably none of these would reach the fruit without injuring the tree. But that is not certain until it is tried; for even a noxious exhalation from the bark and leaves, might repel the intruder.

GRAPES.—Oh grapes, grapes!! We go from bad to worse. All the grapes raised in Illinois last season, would not make nectar enough to fill Hebe's smallest cup. All remedies and theories, have utterly failed. The grapes set well as usual, but in July, even before the extreme heat came on, they began to rot. I visited nearly every grapevine in this place, to try to ascertain the facts in the case, and I found but one solitary vine which even tolerably retained its fruit. This was one about five or six years old, planted on the top of the lime scoriæ thrown out from the mortar bed while building a large brick house. Its bed was supposed to be from one to two feet thick, of lime and brickbats, covered with a few inches of soil by the natural process of grading about the house. The grapes on this vine ripened well with no extra care, and it was the only case in town, or in the county, so far as I know. I tried, myself, all sorts of experiments. I obtained cedar posts 22 feet long, from St. Louis, and elevated some. I sent to New-York and got a barrel of plaster of Paris for others; lime for others, ashes and bones for others. Some I covered six inches deep with saw-dust; some I covered with a coping, and kept them as dry as

possible; others I kept water standing around all summer. Some I trimmed close in various ways, and others I did not trim at all. But the rot took the whole of them at last, indiscriminately. At one time I thought those mulched with saw-dust and elevated on the cedar poles, had escaped, and was about to inform you of my entire triumph, as the others were nearly all gone, while these were fresh and fair. But fortunately, before I got time to write my exultation, these mostly went in the same way; they however ripened a few bunches, and strange to tell, almost every grape that ripened had a worm in it, and was worthless. Now, query—is this rot caused by an insect, and did not the mulching destroy the larvæ under these vines until all the others were "used up," the insects then gathering upon those also, by emigration? I confess it looks like it. Again, the week before they began to rot, I saw a great number of little insects on the wing under those vines—somewhat resembling a small fly, but so quick on the wing it was impossible to catch them, and I never saw one light, nor could I find any in any other part of the garden, though there were hundreds under this grape arbor in the early part of the day. This attracted my attention strongly at the time. But I thought little of it until I found the grapes all worm-tenanted in the fall.

Again, I had almost forgotten the conclusion, until a week or two since, I was informed while in Quincy that one man had saved his crop, by his son's catching an insect about the vines early in the season. His theory, I learn, is that the rot is caused by an insect which deposits the larvæ in the bloom, similar to the pea-fly—hence those grapes which perish early, say about the size of green peas, do not perfect their larvæ, while those which hang on late, and ripen as some of mine did, do perfect them.

This also accords well enough with the fact, that old vines are worse infected than new ones—and the same of localities.

Some soils, also, may be propitious to the larvæ, others destructive—while mulching, liming and various other processes, may tend to destroy them. But here I have no theory and no opinion; the facts I have detailed are facts—that is all I care as yet to say, except that I think them sufficient to set others to watching and thinking; for in the present state of things, grapes, over thousands of square miles in the west, can be of little or no use, and he who first discovers the true cause and cure, will be one of the greatest benefactors of his country and race. *Have any others found their grapes wormy in the fall?*

Melons.—I have found for two years, that melons, and especially water-melons, did far best either on new ground, (which all admit,) or after a crop of tomatoes, where they yielded twice as well as on other old ground.

Cherries.—All the cherry trees which I stripped of their outer bark some years since, have escaped all disease thus far, and continue to do well. I intend to experiment upon the corticle of the pear next season with a rasp, as I have a suspicion that they may thus be benefitted. At all events, with us, their most critical period by far, is while changing from a smooth to a rough-barked tree.

I am conscious I have been tedious. I will therefore close, and leave you to publish as much or as little of this long epistle—in entire or separate numbers—as you please. Meantime, I am as ever truly yours, J. B. Turner.

Jacksonville, Illinois, Jan. 7, 1851.

THE RARE TREES AND PLEASURE GROUNDS OF PENNSYLVANIA.

BY A MASSACHUSETTS SUBSRCIBER.

If in this country, where the people from the highest to the lowest, profess to be patriots, they can once be persuaded that *planting* is a patriotic work, or where all are close calculators of profit and loss, it can be demonstrated to their satisfaction, that it is a profitable one—the end is attained. To those who ask why they should plant for posterity, when posterity has done nothing for them, I would urge these two arguments, profit and patriotism. With all due deference to the wisdom of the oracular Dr. Johnson, I deny both his premises and conclusions, when he offers the following consoling paragraph to the Scotch planters: "There is a frightful interval between the seed and the timber. He that calculates the growth of trees, has an unwelcome remembrance of the shortness of life driven hard upon him. He knows that he is doing what will never benefit himself, and when he rejoices to see the stem rise, is disposed to repine that another shall cut it down." A less gloomy moralist, the good and gentle Herbert, in enumerating the advantages of cultivating the earth, alludes to a common idea, and draws the beautiful simile, "that as the smell of a fresh turned sod is good for the health of the body, so may the contemplation of death be for the health of the soul." The first and last portion of Dr. Johnson's assertion is easily controverted by the calculations and experience of English gentlemen, who have estimated that "a single acre planted with the poplar or larch, will, in favorable situations, and in no longer period than twenty years, yield a produce worth ten times the fee simple of the land." The low price of labor and higher value of wood in Great Britain is about equalised in this country by the lower value of land, so that while the individual estimates are different, the aggregate account is similar. Walter Scott, who was a practical planter, found that in eleven years the necessary cuttings and trimmings from a larch plantation would pay the expenses attendant upon the first setting out, fencing and rent of land; after that the value increases in a compound ratio. The larch tree is not only a fast growing tree, but produces firm and durable wood, and is well adapted to a soil and climate where little else will flourish. By it large tracts of country in the north of Perthshire were converted from waste unprofitable land to fine woods and pasturage for cattle. The Duke of Athol remarked that the white clover sprung up beneath the larch, the annual fall of the leaves manuring the ground, so that the seeds of this plant which lay dormant beneath the sod, required only a little stimulant to bring them up, after the sod had once been disturbed by the setting of the trees. I should like here to speak upon the subject of spontaneous vegetation, an error very commonly maintained; but the limits of this article will not allow such a digression. To return to our larches. The poet of nature protested against a "vegetable manufactory" of them being carried on his neighborhood, and I can well imagine that they would not harmonize with the rich landscape of Cumberland and Rydal Mount; but on the bleak hills and barren seashore of New-England, where Emerson, in his Report on the Trees of Massachusetts, has recommended them to be planted, the scenery is far different. These hills, as well as the islands on the Massachusetts coast, were formerly covered with wood, but the injudicious and careless felling of the outer trees first, let in the cold winds upon those which had been tenderly sheltered,

"And the shady nook
Of hazels and the green and mossy bower,
Deformed and sallied, patiently gave up
Their quiet being."

Some mute inglorious MILTON of those days may have felt like WORDSWORTH,

"A sense of pain when he beheld
The silent trees and the intruding sky."

Our ancestors had a valid excuse for thus destroying the primeval forest. It was to them no longer the good green-wood of merrie England, peopled with fairies, Robin Goodfellow and Puck, but each tree afforded a secure shelter for the savage Indian, who, with tomahawk and scalping knife, darted from behind the huge grey boles, to inflict a sanguinary death upon those who ventured beyond the "clearings;" thus he who destroyed a tree brought his labor to an excellent work. But now the times have changed; "trees are notes issued from the bank of nature," increasing in value as the eastern portion of the country is becoming rapidly denuded of wood, and the railroads, which in every direction are weaving a net-work amid the northern forests, consume annually the growth of hundreds of acres. Another EVELYN is needed to sound throughout the land a parenesis, to awaken the man of fortune and the farmer to the knowledge that there is pleasure as well as profit in raising something else besides cabbages and monster squashes, for trees will live where not even a turnip will grow. A gentleman in this neighborhood has very wisely offered a premium to any one who plants and makes grow a certain number of forest trees within a limited time. Some such plan as this, generally adopted by Agricultural Societies, would have a good effect, and make our bleak hills and waste places

"One ample theatre of sylvan shade."

This long digression upon planting brings me at last to the subject with which I intended to have commenced—a visit to the Woodlands, near Philadelphia.

This beautiful place was formerly the seat of WILLIAM HAMILTON, a man of taste, and a patron of the Arts and Natural Sciences. He was a lineal descendant of ANDREW HAMILSON, a Scotchman, well known in the early settlement of Pennsylvania as WILLIAM PENN'S deputy governor. WILLIAM HAMILTON, after his return from Europe in 1784, built a splendid house in the Italian style, on the banks of the Schuylkill, and laid out the grounds around it, giving to the sylvan spot the characteristic name of the Woodlands. The mansion is large, and the rooms, even now, though deserted and unfurnished, present an appearance of elegance; the base walls were once ornamented with fine paintings, and the niches adorned with statues. The works of art have vanished, but the beautiful features of nature remain unchanged; the view from the stately piazza, over the bright waters and fertile fields, still delights the eye, as it did in days long passed. Seen from that point, the river in its windings presents the appearance of five detached lakes, the intervening portion—

"The shadowy woodlands hide it,
And the waters disappear."

In this smiling retreat Mr. HAMILTON delighted to gather together a variety of rare trees and plants, and did much by his enthusiasm, to cultivate a love for such pursuits, when they were less common than at the present day. His hot-houses were extensive, and filled with the floral riches of the tropics, rarely seen in this country half a century ago. An anecdote is related of the fate that befel one of the first Camellia flowers that bloomed in this country in his green-house; Mr. HAMILTON was social in his habits, and accustomed to give large entertainments; on one one of these occasions, the first flower had expanded, and he, desirous of delighting and astonishing his friends, had directed the gardener to have it in readiness to be placed in the center of the dinner table. At the proper time, as he walked towards the green-house to see that his orders were fulfilled, he met one of the ladies of the party, who had in her hand the prize, the only flower, and stepping up to

him in great glee, said, "see what a lovely flower I have plucked." Mr. HAMILTON exclaimed with an oath, "Madam, I had rather have given you one hundred guineas than that you should have picked that precious blossom." [A rather ungallant speech, for doubtless the lady was herself, the fairer flower. ED.] The grounds were planted with taste; the grouping and variety of trees produce a picturesque effect; yet the place has suffered severely from changing owners, and is now far inferior in beauty to what it was during HAMILTON'S life time. He bequeathed it to his nephew, JAMES HAMILTON, by whom it was finally sold to a gentleman of Philadelphia, who occupied the house for a time, and felled many of the finest trees for fuel. Quite recently, one of the most stately specimens of the black oak (Quercus tinctoria) existing in this neighborhood, was laid low. This regal tree was four feet in diameter. A walk leading from the mansion in a northerly direction, and of which there is still some remains, was termed the "English walk," on account of its sinuous course; it is skirted with the yellow Broom (Cytisus scoparius,) which grows here luxuriantly. He probably first brought the plant to this country, and it seems to have been a favorite with him, as it existed on his other estates of Bush Hill and Lemon Hill. HAMILTON introduced the *Platanus orientalis*, of which there is a fine specimen still flourishing at the Woodlands, probably the first in the country; it was under the eastern plane that XERXES halted his army of seventeen hundred thousand men, according to EVELYN, "to admire its pulchritude and procerity, and became so fond of it, that spoiling both himself, his wives and great persons of all their jewels, he covered it with gold gems, necklaces, scarfs, bracelets and infinite riches, * * * and when he was forced to part with it, he caused the figure of it to be stamped on a medal of gold, which he continually wore about him."

HAMILTON also introduced (besides the Wych Elm from Britain, and the Tartarian Maple, indigenous to Russia,) the Lombardy Poplar, for a while such a universal favorite, but which is now rarely considered an ornamental tree. The cause of this deterioration may be explained by the fact that the poplar is dioecious, and only the staminate tree was brought to this country; consequently, it has been propagated by suckers or cuttings, which root easily and grow rapidly, so that the tree is now in its dotage; it would be well for some one to import either seed or a pistillate tree, and thus raise a new stock. Long rows of this stiff tree have justly given to the lovers of the picturesque, a distaste to it, but the landscape-gardener ought not wholly to neglect it on that account, any more than the landscape-painter would refuse to use a certain color because another artist employed that color too profusely; a few Lombardy poplars planted judiciously produce a fine effect—their tall symmetrical forms rising above their neighbors, catch the eye and break the monotony of a view. The stately heads of the poplars were laid low in New-England many years ago, on account of the stories circulated that a frightful insect had been found to infest them; this creature seemed to partake somewhat of the fabulous character of the dragon, but whether real or imaginary it caused the destruction of this tree, which had become so fashionable after the French revolution,* that it was planted in front of nearly every house, to the exclusion of all others.

The Gingko tree (*Salisburia adantifolia,*) a native of China, a number of which are flourishing there finely—brought to my mind, as its strange leaves flashed in the sun-light, Dr. BIGELOW'S address to this curious tree:

> Thou queer, outlandish, fan-leaved tree,
> Whose grandfather came o'er the sea,
> A pilgrim of the ocean—

* The poplar was adopted by the French as the liberty tree.

Didst thou expect to gather gear
By selling out thy chopsticks here?
What a mistaken notion.

These are said to be the largest, if not the oldest in the country; however, I do not think they exceed in age the one on Boston Common, which was removed to its present site about fourteen years ago, when the Greene estate was levelled to build Pemberton Square; it was thought at the time a great risk to remove so large and delicate a tree, but it must be either moved or cut down, modern improvement said, and the event has proved that the attempt was judiciously made, for though it languished for several years, and has probably increased but little in size since its transplantation, it is now growing, its roots and branches somewhat cut away, in order to convey it through the narrow streets, so that it will never vie in beauty of form with its brethren of the Woodlands. HAMILTON did not import and nurse up foreign trees to the exclusion of those of native growth, but gathered together at the Woodlands, the most beautiful from the northern and southern states: there are two noble specimens of the *Fagus furuginea* now growing there, probably the only ones in that section of country. The *Magnolia cordata* was also, through his means, brought from the south. It was as gardener on this estate, that PURSH, the author of *Flora Americæ Septentrionalis*, began his career in this country. His predecessor was JOHN LYON, also a collector of American plants, for whom a genus of the Andromedeæ was named—Lyonia. The green-house formerly under their care, is still stocked with plants; a part of it is used as a rosarium, where are blooming in great luxuriance, a variety of the queen of flowers, which are cultivated to plant out upon the graves; for the Woodlands was laid out a few years ago as a cemetery. I could not but lament that so fine a house, in such a lovely situation, was not still occupied by a gentleman of taste and fortune; the reason given for the desertion of the place, was the prevalence of the fever and ague, which is now said to have almost disappeared.

To this lovely spot, once the resort only of the gay and fashionable, the rich and the learned, the dwellers of the crowded city now come out to bury their dead—

And nature's pleasant robe of green,
Humanity's appointed shroud, enwraps
Their monuments and their memory.

Yours. B.

Cambridge, Mass., 1851.

ON RAISING POTATOES FROM SEED.

BY WILLIAM PARRY, BURLINGTON CO., N. J.

HAVING derived much pleasure an information from reading accounts of the experiments recorded in the Horticulturist, I feel it right to contribute what little lays in my power towards the general good, in part return for the benefits which I have received from the experience of others.

The potato being so valuable an esculent, every precaution should be used to extend its usefulness, by increasing the varieties and testing the merits of each, as well in quality as quantity produced, that those which prove superior, either in early ripening or adaptation to particular soils or climate, may be disseminated throughout the country, and those which are inferior be discarded from cultivation.

The usual mode of raising potatoes from the *seed*, by planting in the open garden, being tedious and requiring several years to develop their true characters, has deterred many

from the undertaking. The seed require a long time to vegetate, and the growth being slow thereafter, noxious weeds and grass get the start and become very troublesome; the plants attain but a diminutive size early in the season, which is the most favorable time for their growth; the tubers do not set until the latter part of summer, when the dry weather and parching rays of the sun check their future growth, and tend to ripen the crop before it has attained much size, so that the product of the first year is very trifling, and several years are required to ascertain the true qualities of the seedling.

The great object, then, is to get the plants so advanced in the spring, that the tubers may set and grow in the early part of summer, when the refreshing showers alternating with the genial rays of the sun are most favorable for their growth.

The plan that has succeeded well with me for several years past, is as follows: Soon after the ripening of the potato tops, I gathered the balls of the Mercer potato, mashed them together, threw on a little water and left them a few days to ferment, when the seed were easily separated from the pulp and husk, and after being dried were placed away secure from frost or moisture, to remain until spring for planting. The latter part of the third month the seed were sowed in a hot-bed under glass, the grains being sown a quarter of an inch asunder. From the middle to the latter part of the fifth month, the plants being three or four inches high, and frosty weather appearing to be over, on damp cloudy days or soon after a rain, the plants were taken up with a portion of earth to each and placed in loose rich soil, at about the same distance from one another as potatoes are usually planted.

The plants neither wilted nor showed any signs of suffering from transplanting.

It is of importance that they should be put down into the earth two inches lower than they stood in the seed bed; they will thus produce more roots: but care must be taken that the young plants do not produce tubers while they remain in the seed-bed, as they will be very much weakened if allowed to do so before they are put out. The earthing-up of the potatoes raised from the seed, should be done early, and not too heavily; for if the plants are put out in weather which is not very unfavorable, they soon begin to shoot up, and the entire soil is penetrated by very small fine fibres, which would be injured by a high or late earthing-up, the production of tubers be delayed for a fortnight or three weeks, and the produce diminished. The potato plants thrive best in a rich sandy soil which has been deeply dug. [Potatoes should never be earthed up at all. Ed.]

By the above method I have raised full sized, merchantable potatoes the first year from the seed; many hills having but three to five potatoes and all of a fair size for market—others having a larger amount were proportionally smaller. By recurring to seedlings we may obtain a healthy article free from rot or any other disease, but I have no confidence that they will long remain so after being exposed to the same influence under which the parent stock has degenerated.

The failure of the potato crop in many parts of the country has induced farmer to experiment carefully in order to ascertain if possible in what situations or kinds of soils they generally succeed best, and from what experience I have had, I am inclined to the opinion, that where the land is clayey and tenacious, thereby holding the heavy rains in immediate contact with the tubers until the hot sun coming upon them, while thus thoroughly saturated with water, completes their destruction, drying and baking the ground over and around them, so as to exclude the air; that if they were so near ripe at the time as to retain their form until harvested, they soon give way after being exposed to atmospheric influence. Such soil is unsuitable for raising potatoes—and the same cause that has heretofore prevented the cultivation of the more delicate sweet potato on heavy

land, now operates against the Mercer or Irish potato, which seems to have degenerated in vigor, and has at length yielded to those adverse influences (which the sweet potato never could withstand) that had been imperceptibly, though no less certainly impairing its constitution for many years previous; and that sandy loam, open and porous soils, which allow the excess of moisture to pass off freely from the plants, whereby severe storms act like gentle showers merely to moisten the roots and invigorate the plants, and the genial rays of the sun thereafter meliorate the land to the great benefit of the growing crop—is the most certain land on which to depend for a good crop.

Respectfully, WILLIAM PARRY.

Cinnaminson, Burlington county, N. J., 1st mo. 24, 1851.

NOTES ON THIRTY-TWO VARIETIES OF PLUMS.

BY C. REAGLES, Esq., SCHENECTADY, N. Y.

LIVING in a plum growing district, where the fruit is produced in great perfection and abundance, I may claim a right to know something about plums and plum trees. I therefore send you a few scraps from my Note Book, in hopes they may be of some benefit to those who are not similarly blessed.

1. *Peach Plum.*—I am well satisfied of the impossiblity of successfully cultivating this plum to the northward of New-York. The winters are so severe as to destroy nearly every year the new wood and blossom-buds; consequently fruit from this variety is very rarely obtained. I have grown it for the last twenty-two years; in the nursery, frequently, hundreds of trees are entirely destroyed, rarely showing a symptom of vitality on the approach of vegetation the ensuing season.

2. *Lombard.*—This variety of native origin, is certainly one of the most profitable plums, for orchard culture, that has as yet come under my notice—not only producing enormous crops of perfect fruit, annually, but at the same time growing vigorously with ordinary attention, accommodating itself to almost every variety of soil; a great desideratum in my opinion, for such soils as are not adapted to the general cultivation of the plum.

3. *Schenectady Catharine.*—A variety peculiar to this locality, where it has enjoyed the reputation of a first rate fruit, and deservedly so, as it posseses all the qualities desired, except large size—i. e., hardy, extremely productive, and of a flavor but rarely excelled.

4. *Coe's Golden Drop.*—A great favorite wherever it is generally known; this plum has already been extensively planted in this city, although I opine it will not be very profitable to the market grower, as it is rather a shy bearer; but its late maturity and excellent flavor, will always command a place for it in the kitchen and amateur garden.

5. *Coe's Late Red.*—Has been somewhat over praised, as it has nothing to commend it but the lateness of its ripening season. [A quite correct opinion for your latitude, but farther south it is a valuable fruit. Ed.]

6. *Columbia.*—I have fruited for the last five years; my experience, during which time, goes to prove it hardly worthy of the high encomiums which have so frequently been bestowed upon it. The tree is a hardy, vigorous grower, and good bearer, but the fruit is liable to *rot*. This plum is of a magnificent size and color—flavor rather mediocre.

7. *Bleecker Gage.*—A tolerable bearer, and an excellent fruit in all respects.

8. *Green Gage.*—Assumes a variety of characters in different soils. I have fruited it under the several names of Wilmott's Late Green Gage, Schuyler Gage, Rensselaer Gage,

and Ida Gage. To produce its fruit in perfection, (north of New-York,) it requires a warm, deep soil, with a southern inclination; and on a wall, with the latter mentioned exposure, it can be grown to twice its usual size and beauty.

9. *Prince's Imperial Gage.*—A well known and extensively cultivated variety, on which the grower can calculate to a certainty the number of bushels of fruit he can annually carry to market. This fact, connected with its other good qualities, will keep it in cultivation when other higher flavored sorts are comparatively abandoned.

10. *Huling's Superb.*—This mammoth fruit does not seem to have attracted that universal notice to which it is entitled in so eminent a degree. It is a decided anomaly in this class of fruits, carrying out its gigantic proportions in wood, foliage, and fruit. It is tolerably hardy, a good or ordinary bearer, fruit of the largest size, &c.—superior flavor.

11. *Blue Imperatrice.*—A very late plum—decidedly superior to Coe's Late Red in this latitude.

12. *Jefferson.*—An excellent plum in all respects; a little tender here, and very difficult of propagation to any extent.

13. *Lawrence's Favorite.*—Has proved itself highly deserving of the numberless eulogiums so unsparingly bestowed upon it by those who have partaken of its highly delicious fruit. The tree is a strong grower, quite hardy, differing very materially in this respect from the Jefferson.

14. *Purple Magnum Bonum.*—A very ordinary plum, frequently reproducing itself from seed, with scarcely any perceptible difference of habit or fruit. One of these seedlings is "Duane Purple," which does not differ materially from a half dozen other seedlings cultivated here, under the name of Red Magnum Bonum.

15. *Yellow Magnum Bonum,* (or Egg Plum,) is quite a favorite here, being very hardy, productive, late, and consequently a very profitable plum for market.

16. *Marten's Seedling.*—A new yellow plum, which originated in the garden of the gentleman whose name it bears, residing in this city; it has fruited with me this last summer, and proves to be a plum of the finest quality, superior to the majority of highly lauded foreign varieties.

17. *Mediterranean.*—Another new seedling from the interior of this state, nearly as large as the Peach plum; superior to it in point of flavor, and some six days earlier. It forms a beautiful, thrifty growing tree, perfectly hardy. *Ripens* the latter part of July and first of August.

18. *Washington.*—A magnificent showy plum, of very good flavor; hardy and productive; a general favorite.

19. *Early Royal.*—Rather tender; a slow grower; very productive; an excellent, high flavored fruit; ripens the latter part of July.

Lucomb's Nonsuch.—Quite mediocre.

20. *Autumn Gage.*—A prodigious bearer; quite late, and nearly first rate.

21. *Cloth of Gold.*—Early; but too dry and small to commend it to favorable notice.

22. *Red Diaper,* (or Mimms)—Grows very much like the Green Gage; the wood of the new growth is occasionally destroyed by severe winters. It is a red plum, as its name indicates, exceedingly delicious and melting.

23. *Emerald Drop.*—An abundant bearer; makes a fine tree; well worthy of cultivation.

24. *Imperial Ottoman.*—This is a beautiful plum; ripens first of August; flavor occasionally first rate; almost too tender for this latitude.

25. *Morocco.*—Fruit second rate; a shy bearer; quite early and hardy. *Ripens* first of August.

26. *Nectarine.*—Second rate; much below my expectation; very large, but quite coarse.

27. *Purple Favorite.*—One of the best of purple plums; hardy, productive, and delicious.

28. *Royal.*—An excellent plum of French origin, and quite hardy; not equal, however to the Purple Favorite.

29. *Purple Gage.*—Nearly, if not quite as good, as the Purple Favorite.

Ickworth Imperatrice.—Seldom ripens.

30. *Red Gage.*—Almost as productive as the Lombard; greatly surpassing the latter, however in flavor. [Deserves to be far more extensively planted than it has been. Ed.]

31. *Denniston's Red.*—I think this plum may be safely ranked among the first rate, for such, thus far, it has certainly proved to be; vigorous, hardy and productive.

32. *Denniston's Albany Beauty.*—Not as good as the foregoing, but well worthy the attention of cultivators. I remain your ob't serv't. C. Reagles.

P. S. Another season I shall be able to send you specimens of the new seedling varieties, that you may judge of their qualities, compared with other good sorts. C. R.

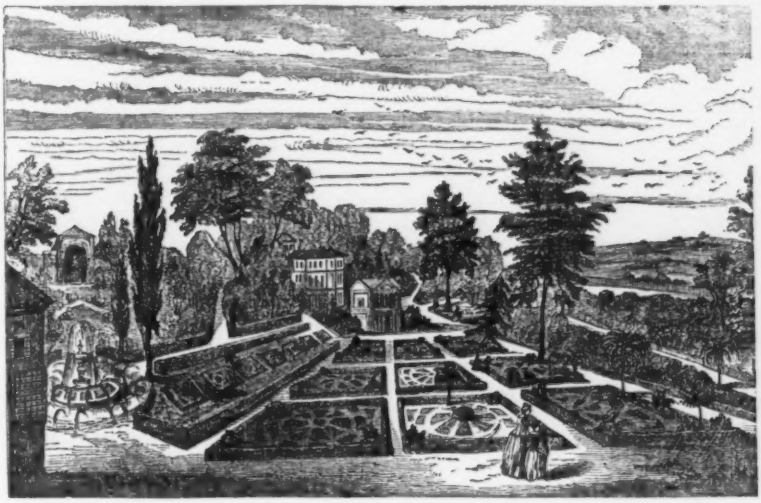
Schenectady, Jan., 1851.

NOTES ON DECORATIVE GARDENING—Architectural Terraces.

BY H. NOEL HUMPHREYS, Esq.*

I have, in my last communication, shown how terraces may be produced at an exceedingly moderate expense, suitable to various styles of cottage and villa architecture, and it is on this moderate scale that suggestions for the formations of terraces will interest the greatest number; but this most important feature of decorative gardening would be but imperfectly explained did we finish the series without alluding to terraces in their more palatial form, and in their noblest proportions. It is not always necessary to terrace effects, on the largest scale, that architectural decorations should be introduced, for, by simple embankments, as suggested in our paper on cottage terraces, gardenesque features of a very noble character, and suited to residences of the highest class, may be obtained. The engraving, from a portion of the Papal Gardens of the Belvedere at the back of the Palace of the Vatican, at Rome, will serve to show what may be produced by such simple means; and though still susceptible of great improvement, the geometrical figures produced by deep box edgings, and the symmetrical effect given to the variety of elevation by the embankments, are evidences of a true feeling for the gardenesque in the designer. The effects to be produced near main terraces, by deep, massive, box edgings, have been much neglected, and might be revived with great effect; but this feature must be cautiously used, and not carried too far, as, in that case, the attempts invariably sink into the meritricious—when, for instance, these cropped edgings are tortured into initial ciphers, or even entire epigrams, as in some of the later Italian villas; or to select a more modern instance, in the magnificent gardens of the Earl of Shrewsbury, at Alton Towers—gardens reclaimed by art from land, which some years ago was no other than a barren waste—where, if my memory serves me correctly, a bust has been placed upon a marble column, in a conspicuous part of the ornamental gardens, at the base of which, the ingenious and persevering spectator may decipher, in the cropped box, the motto, "He made

* From the Gardener's Magazine of Botany.



THE PAPAL GARDENS OF THE BELVEDERE.

the desert smile,"* in honor of the late Earl of Shrewsbury, under whose directions the improvements were effected. Such elaborate conceits are apt to make the spectator smile; but they are not, as I have observed, without their precedent, for some of the finest of the Italian villas are disfigured by similar effusions, and to a much greater extent—of which several ridiculous and scarcely creditable examples might be cited.

Of the most architectural terrace, with its full complement of statuary, vases, fountains, &c., the villa Panfili Doria, may be cited as an example. Of this magnificent specimen, the engraving will contain a very good general idea.

As displaying the true feeling of the palatial terraces of the school, these Italian villas are the safest, as they are the original models. I find, in my Italian journal, the following notes on these fine monuments of architectural and gardenesque composition.

The villas of the modern Romans merit the name of palaces, and form one of the most characteristic features of Italian scenery. Of those in the immediate vicinity of Rome, that of the Borghesi family, which is the confiscated domain of the unfortunate Cenci, is the most important; it is open to the public, and forms the Hyde Park of the Romans; but neither Hyde Park, nor Kensington gardens, nor the Tuilleries, nor Versailles, can convey any idea of the peculiar charms of a Roman villa. There is a freshness of vegetation about the suburban *delizie* of Rome, that the neighborhood of large towns always tarnishes, except in Italy. But there, close under the walls of Rome, the Appenine Anemone, of various tints, brightly colored Scillas, the deep crimson Cyclamen, and many beautiful Orchids, put forth their fragrant blossoms in early spring, as in the woody dells of the secluded country. The "sky-cleaving Cypress" shoots aloft its pointed or forked peak, to a height equal to the Poplar of the North, and noble groves of Ilices, whose vast trunks spread above with groined branchwork, into densely-matted foliage, form,

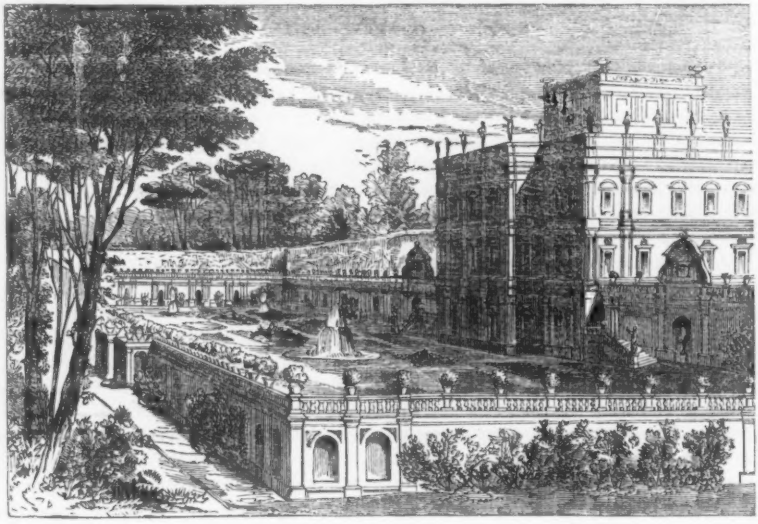
* I am not certain whether the vegetable literature may not be confined to initial ciphers, and the motto itself engraved on the column; if so, the ciphers serve the purpose of illustration equally well.

"A pillared shade
With echoing walks beneath."

The peculiar character of the tufted heads of the Stone Pines, too, grouping in picturesque masses with terraces, statues, and fountains, tend to invest Roman villas with a charm peculiarly their own.

To return to the subject of our engraving, the villa Panfili Doria is next in importance to that of the Borghesi, among the villas near Rome; but its somewhat greater distance, and unhealthy situation, cause it to be much less frequented. The palace itself is, on its exterior, almost entirely encrusted with antique *alto-relievi*, some of which are of the highest merit, and most exquisite beauty. This is a luxury which cannot be imitated except in Italy, where the soil still teems with the fragments of her ancient splendor, many of the finest of these *relievi* having been turned up in digging the foundation of the building. The whole of the composition of this palace and gardens—for the whole forms one harmonious design—is an excellent model for the careful examination of the modern student, but the reduced dimensions of our engraving, can convey but a very inadequate idea of the numerous and elaborate details.

I find the following brief notices of one or two other villas in my journal, with which I shall conclude this article, which, though not strictly of a *practical* character, is yet, I think, calculated to convey my opinion of the styles to be adopted in the higher class of terraces, better than more mechanical definition.



TEH VILLA PANFILI DORIA.

The villa Albani, perhaps, realises more than any other the dreams of the Italian villa, that haunt the imagination before having seen Italy. It is chaste, and severely classic in its style, yet, withal, richly magnificent, a rare and difficult combination. And to its intrinsic features, the charms of position are superadded, the range of views from its marble terraces commanding the finest portions of the picturesque campagna, with its rugged lines of half crumbling acqueducts, and scattered groups of detached ruins.

The gardens of the Borghesian villa Mondragone, at Frascati, combine to an unusual extent the richness of immediately surrounding features with the result of art. The noblest views over the Appenine range, and the campagna, the latter extending even to Rome, where the vast cupolas of St. Peter's are seen describing a dim blue arch upon the horizon. The various and picturesque foreground offered by the rich marble terraces of Mondragone, have not been overlooked by artists; many distant views of Rome, and of the ever attractive campagna, have been painted from this spot.

MR. DOWNING'S LETTERS FROM ENGLAND.

DROPMORE is the seat of LADY GRENVILLE, and has been celebrated, for some time, for its collection of rare trees—especially evergreens. It is in the neighborhood of Windsor, and I passed a morning there with a good deal of interest.

In point of taste and beauty, Dropmore disappointed me. The site is flat, the soil sandy and thin, and the arrangement, in no way remarkable. The mansion is not so fine as some upon the Hudson, and the scenery about it, does not rise above the dead level of an uniformity rendered less insipid by abundant plantations. There is, however, a wilderness of flower-garden about the house, in which I saw scarlet geraniums and garden vases enough to embellish a whole village. The effect, however, was *riant* and gay without the sentiment of real beauty.

But one does not go to Norway to drink sherbet, and Dropmore is only a show place by virtue of its *Pinetum*. This is its collection of evergreen trees, and particularly of the *pine* tribe—every species that will grow in England being collected in this one place.

Of course, in a scientific collection of evergreen trees, there are many that are only curious to the botanist—many that are only valuable for timber, and many that are almost ugly in their growth—or at least present no attractive feature to the general eye. But there are also, in this Pinetum, some evergreens of such rare and wonderful beauty, growing in such exquisite perfection of development, that they effect a tree-lover like those few finest Raphaels and Vandykes in the great galleries, which irradiate whole acres of common art.

The oldest and finest portion of the Pinetum occupies a lawn of several acres near the house, upon which are assembled, like belles at a levee, many of those loveliest of evergreens—the Araucaria or pine of Chili, the Douglass' Fir of California, the Sacred Cedar of India, the Funebral Cypress of Japan and many others.

Perhaps the finest tree in this scene is the Douglass' Fir (*Abies Douglassii.*) It is sixty-two feet high, and has grown to this altitude in twenty-one years from the seed. It resembles most the Norway Spruce, as one occasionally sees the finest form of that tree, having that graceful downward sweep of the branches and *feathering* out quite down to the turf—but it is altogether more airy in form and of a richer and darker green in color. At this size it is the symbol of stately elegance. Here is also a specimen, thirty feet high, of *Pinus insignis*, the richest and darkest of all pines, as well as *Pinus excelsa*, one of the most *affectedly* pretty evergreens—its silvery leaves resembling those of the white pine, but drooping languidly—and *Pinus macrocarpa* with longer leaves than those of the Pinaster.*

* *Taxodium sempervirens* is here seventeen feet high—rich dark green in foliage and very ornamental. *Cryptomeria japonica*, nearly as large, rather disappointed me—keeping its brown leaves so long as to disfigure the plant somewhat. *Picea nobilis* is a truly beautiful fir tree.

But the gem of the collection is the superb Chili Pine or Araucaria—the oldest, I think, in England, or, at all events, the finest. The seed was presented to the late LORD GRENVILLE by WILLIAM IVth—who had some of the first gigantic cones of this tree that were imported. This specimen is now 30 feet high, perfectly symmetrical, the stem as straight as a column—the branches disposed with the utmost regularity, and the lower ones drooping and touching the ground like those of a larch. If you will not smile, I will tell you that it struck me that the expression of this tree is *heroic*—that is, it looks the very Mars of evergreens. There are no slender twigs, no small branches—but a great stem with branches like a colossal bronze candelabrum, or perhaps the whole reminds one more of some gigantic, dark green coral than a living, flexible tree. Yet it is a grand object—in its richest of dark green, its noble aspect and its powerful, defiant attitude. This is quite the best specimen that I have seen, and stands in a light, sandy soil on a gravelly bottom—on which soil I was told, it only grows luxuriantly. I do not know how well this fine evergreen will succeed at home. It is now on trial—but I would hint to those who may fail from planting it in *rich* damp soil, that even here, it completely fails in such situations.

After leaving what I should call the Pinetum in full dress—i. e. in the highly kept part of the grounds near the house, you emerge gradually into a tract of many acres of nearly level surface, which reminded me so strongly of a scattered Jersey pine barren, that had it not been for tufts and patches of that charming little plant the *heather* in full bloom, growing wild on all sides, I might have fancied myself in the neighborhood of Amboy. The whole looked, and much of it was, essentially wild, with the exception of carriage-drives and foot-paths running through the mingled copse, heath and woodland. But I was soon convinced of the fact that it was not entirely a wild growth, by being shown, here and there, looking quite as if they had come up by chance, rare specimens of pines, firs, cedars, etc. from all parts of the world, and presently I came upon a noble avenue, half a mile long, of Cedars of Lebanon (a tree to which I always feel inclined to take off my hat as I would to an old cathedral.) The latter have been planted about twenty-five years, and are just beginning to merge the beautiful in the grand. Everything in the shape of an evergreen seems to thrive in this light sandy soil, and I suggest to the owners of similar waste land in the middle and southern states, to take the hint from this part of Dropmore—plant here and there in the openings the same evergreen trees, protecting them by a slight paling at first, and gradually clearing away all the common growth as they advance into beauty. In this way they may get a wonderfully interesting park—in soil where oaks and elms would never grow—at a very trifling outlay.

I cannot dismiss Dropmore without mentioning a superb hedge of Portugal laurel, thirty-one feet high—and the beautiful "Burnam beeches," almost as fine as one ever sees in America, that I passed on the way back to the rail-way station.

The last word reminds me that I must say a word or two here, about the English railways. In point of speed I think their reputation out-runs the fact. I did not find their average, (with the exception of the road between Liverpool and London,) much above that of our best northern and eastern roads. They make, for instance, hardly 20 miles an hour with the ordinary trains, and about 36 miles an hour with the express trains. But the perfect order and system with which they are managed; the obliging civility of all persons in the employment of the companies to travellers, and the quietness with which the business of the road is carried on, strikes an American very strongly. For example, suppose you are on a railroad at home. You are about to approach a small town, where you may leave and take up, perhaps, twenty passengers. As soon as the town is

in sight, the engine or its whistle begins to scream out—the bell rings—the steam whizzes—and the train stops. Out hurry the way passengers, in rush the new comers. Again the bell rings, the steam whizzes, and with a noise something between a screech and a yell, but more infernal than either—a noise that deafens the old ladies, delights the boys, and frightens all the horses, off rushes the train—whizzing and yelling over a mile or two more of country, before it takes breath for the like process at the next station.

In an English railway you seldom hear the scream of the steam whistle at all. It is not considered part of the business of the engineer to disturb the peace of the whole neighborhood, and inform them that he and the train are coming. The guard at the station notices the train when it first comes in sight. He immediately rings a *hand-bell*, just loud enough to warn the passengers in the station, to get ready. The train arrives—no yelling, screaming—or whizzing—possibly a gentle letting off of the steam—quite a necessary thing—not at all for effect. The passengers get out, and others get in, and are all carefully seated by the aforesaid guard or guards. When this is all done, the guard of the station gives a tinkle or two with his hand-bell again, to signify to the conductor that all is ready, and off the train darts, as quietly as if it knew screaming to be a thing not tolerated in good society. But the difference is national after all. JOHN BULL says in his railroads, as in everything else, "steady—all right." BROTHER JONATHAN, "clear the the coast—go ahead!" Still, as our most philosophical writer has said, it is only boys and savages who scream—men learn to control themselves—we hope to see the time when our people shall find out the advantages of possessing power without making a noise about it.

If we may take a lesson from the English in the management of rail-ways, they might learn vastly more from us in the accommodation of passengers. What are called "first-class carriages" on the English rails, are thoroughly comfortable, in the English sense of the word. They have seats for six—each double-cushioned, padded, and set off from the rest, like the easy chair of an alderman, in which you can entrench yourself and imagine that the world was made for you alone. But only a small part of the travel in England is in first-class cars, for it is a luxury that must be paid for in hard gold—costing four or five times as much as the most comfortable travelling by railroad in the United States. And the second class cars—in which the great majority of the British people really travel—what are they? Neat boxes, in which you may sit down on a perfectly smooth board, and find out all the softness that lies in the grain of deal or good English oak—for they are guiltless of all cushions. Our neighbors of this side of the Atlantic have been so long accustomed to catering for the upper class in this country, that the fact that the railroad is the most democratic institution of the day, has not yet dawned upon them in all its breadth. An American rail-car, built to carry a large number in luxurious comfort, at a price that seems fabulous in England, pays better profits by the immense travel it begets, than the ill-devised first and second-class carriages of the English rail-ways.

But what finish and nicety in these English roads! The grades all covered with turf, kept as nicely as a lawn, quite down to the rails, and the divisions between the road and the lands adjoining, made by nicely trimmed hedges. The larger stations are erected in so expensive and solid a manner as to have greatly impaired the profits of some of the roads. But the smaller ones are almost always built in the style of the *cottage ornee*—and, indeed, are some of the prettiest and most picturesque rural buildings that I have seen in England. They all have their little flower-gardens, generally a parterre lying open quite to the edge of the rail, and looking like a gay carpet thrown on the green sward. If the English are an essentially common sense people, they, at least, have a love of flowers in all places, that has something quite romantic in it.

I reached London only to leave it again in another direction, to accept a kind invitation to the country house of Mrs. —— the distinguished authoress of some charming works of fiction—which are widely known in my country, though I shall not transgress English propriety by giving you a clue to her real name.

This place reminded me of home more than any that I have seen in England; not, indeed, of my own home in the Hudson highlands, with its bold river and mountain scenery, but of the general features of American cultivated landscape. The house, which is not unlike a country house of good size with us, is situated on a hill which rises gently, but so high above the surrounding country, as to give a wide panorama of field and woodland, such as one sees from a height about Boston and Philadelphia. The approach, and part of the grounds, are bordered with plantations of forest trees, which, though all planted, have been left to themselves so much as to look quite like our native after-growth at home. The place, too, has not the thorough *full-dress* air of the great English country places where I have been staying lately, and both in extent and keeping, is more like a residence on the Hudson. The house sits down quite on a level with the ground, however, so that you can step out of the drawing-room on the soft grass, and stroll to yonder bright flower-garden, grouped round the fountain dancing in the sunshine, as if you were only going out of one room into another. In the library is a great bay-window, and a spacious fire-place set in a deep recess lined with books, suggesting warmth and comfort at once, to both mind and body; and the air of the whole place, joined to the unaffected and cordial welcome from many kind voices, gave me a feeling of *maladie du pays* that I had not felt before in England.

There are no especial wonders of park or palace here, though there is a great deal of quiet beauty, and as I have, perhaps, given you almost a surfeit of great places lately, you will not regret it. I look out of the windows, however, and see in abundance here, as every where, those two evergreens that enrich with their broad glossy leaves, all English gardens and pleasure grounds, and which I never cease to reproach for their monarchical habits—since they so obstinately refuse to be naturalised in our republic—I mean the English and the Portugal laurels. I would give all the hot-house plants that Yankee glass covers, to have these two evergreens as much at home in our pleasure-grounds as they are everywhere in England.

There are other guests in the house—Sir Chas. M——, Lady P., some Irish ladies without titles, (but so rich in natural gifts as to make one feel the poverty of mere rank,) and a charming family of grown up daughters. It would be difficult, perhaps, to have a better opportunity to judge of the life of the educated middle class of this country, than in such homes as this. And what impressions do such examples make upon my mind, you will ask? I will tell you, (not without remembering how many fair young readers you have at home.) The young English woman is less conspicuously *accomplished* than our young women of the same position in America. There is, perhaps, a little less of that *je ne sais quoi*—that nameless grace which captivates at first sight—than with us, but a better and more solid education, more disciplined minds, and above all, more common sense. In the whole art of conversation, including all the topics of the day, with so much of politics as makes a woman really a companion for an intelligent man in his serious thoughts, in history, language, and practical knowledge of the duties of social and domestic life, the English women have, I imagine, few superiors. But what, perhaps, would strike one of our young women most, in English society, would be the thorough cultivation and refinement that exist here, along with the absence of all false delicacy. The fondness of English women, (even in the highest rank,) for out-of-door life, horses, dogs, fine cattle, animals

of all kinds,—for their grounds, and in short every thing that belongs to their homes—their real, unaffected knowledge of, and pleasure in these things, and the unreserved way in which they talk about them, would startle some of my young friends at home, who are educated in the fashionable boarding-school of MADAME ——, to consider all such things "vulgar," and "unlady-like." I accompanied the younger members of the family here this morning, in an exploration of the mysteries of the place. No sooner did we make our appearance out of doors, than we were saluted by dogs of all degrees, and each had the honor of an interview and personal reception, which seemed to be productive of pleasure on both sides. Then some of the horses were brought out of the stable, and a parley took place between them and their fair mistresses; some favorite cows were to be petted and looked after, and their good points were descanted on with knowledge and discrimination; and there was the *basse cour*, with its various population, all discussed and shown with such lively unaffected interest, that I soon saw my fair companions were "born to love pigs and chickens." I have said nothing about the garden, because you know that it is especially the lady's province here. An English woman with no taste for gardening, would be as great a marvel as an angel without wings. And now, were these fresh looking girls, who have so thoroughly entered into these rustic enjoyments, mere country lasses and dairy maids? By no means. They will converse with you in three or four languages; are thoroughly well-grounded in modern literature; sketch from nature with the ease of professional artists, and will sit down to the piano-forte and give you an old ballad, or the finest German or Italian music, as your taste may dictate. And yet many of my young country-women of their age, whose education—wholly intended for the drawing-room—is far below what I have described, would have half fainted with terror, and half blushed with false delicacy, twenty times in the course of the morning, with the discussions of the farm-yard, meadow and stables, which properly belong to a wholsesome country life, and are not in the slightest degree at variance with real delicacy and refinement. I very well know that there are many sensibly educated young women at home, who have the same breadth of cultivation, and the same variety of resources, that make the English women such truly agreeable companions; but alas, I also know that there are many whose beau ideal is bounded by a circle that contains the latest fashionable dance for the feet, the latest fashionable novel for the head, and the latest fashionable fancy work for the fingers.

If I have unconsciously run into something like a sermon, it is from the feeling that among my own lovely countrywomen is to be found the ground-work of the most perfectly attractive feminine character in the world. But of late, their education has been a little vitiated by the introduction of the flimsiest points of French social requirements—rather than the more solid and estimable qualities which belong to English domestic life. The best social development in America will, doubtless, finally result from an internal movement springing from the very bosom of our institutions; but before that can happen, a great many traits and refinements will necessarily be borrowed from the old world—and the larger interests, healthier home tastes, and more thorough education of English women, seem to me hardly rated so highly by us as they deserve. Go to Paris, if you will, to see the most perfect taste in dress, and the finest charm of merely external manners, but make the acquaintance of English women if you wish to get a high idea of feminine character, as it should be to command your sincerest and most lasting admiration and respect.

A. J. D.

Hertfordshire, Sept., 1, 1850.

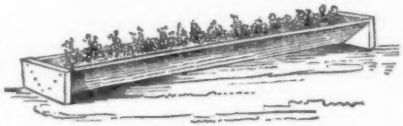
RAISING PEAS—KITCHEN-GARDEN TALK.

BY AN OLD DIGGER.

"THIS is one of those vegetables," said COBBETT, "which all men most like." You know there is not a tolerable kitchen-garden in all Europe or North America, where peas are not cultivated, so it is worth while to ask a neighbor what are the best sorts, and how to cultivate them? For all peas are not alike—some are dry and insipid, while others are tender and sugary.

Well, there are a dozen or twenty sorts of peas, and you may find half the latter number in almost any large seed store. But many of them are only second rate, and, of course, you waste your garden space in planting second rate sorts. What you do want, is the very best early pea; the best succession pea, and the best late pea. For with these, supposing you plant all three sorts about the same time, they will come in so as to keep your table in peas till August. After that, if you are as fond of peas as I am, you will provide a second crop, or rather a couple of second crops of the early pea, for September and the early part of October, by sowing them again about the middle of August.

For the spring crop, you should commence sowing peas as soon as the frost is out of the ground—even it be the first of March, (or a month earlier at the south,) for peas are not tender chicks, like most other vegetables, being not a whit injured by a few very frosty nights, even when they are several inches high. If you have a warm sheltered piece of ground, on the south side of a fence or building, where you can plant a couple of drills as soon as the ground is mellow, then you will get the start of your neighbors who plant in the open garden—for the pea is easily coaxed forward by keeping the cold winds away from it. But much the best way of raising a *very* early crop of peas, if you like to get ahead of the season a little, is that described in the Horticulturist, vol. 1., p. 481, which I have tried for several years. I find, following out that plan, with very little trouble I can gain ten days over most of my neighbors, who have the sharpest gardeners, if they trust entirely to what can be done in the open air. You tack these



troughs loosely together, so that the nails can be easily drawn; you nearly fill them with good soil, planting a drill of peas in them, in the usual way, and you set them in any rough frame, (without dung or bottom heat.) This you must contrive to cover with sashes of some sort—or if you have no sashes, then with frames covered with cheap cotton, coated over with a little oil, to make it partly transparent. With such a frame, set in a sunny place, and covered with cotton stuff or sashes, you begin to start peas by the middle of February, or, if the season is late, the first of March. When they are about three or four inches high, and the season grows mild, you make a furrow in the kitchen-garden, set the troughs in the furrow: draw the nails; lift out the boards, pressing the earth gradually in their place, and then you have peas ready to stick when your earliest planting in the open ground is just breaking through the soil. The peas transplanted from the troughs in this way, don't know that they have been moved at all, and grow on, settling themselves as if they had been sown there, and had a "pre-emption right" to the ground.

Not much needs to be said about the soil for peas. They like a good soil, but the early sorts will grow on almost any land that can be dignified with the name of a garden. But if you look for rapid growth and good crops, your soil must be kept in good heart, for

peas, as well as for every thing else, and the best way to do this is to *ridge up* the ground in the fall, after all the crops are taken off, digging-in *a good dressing of fresh stable-manure* when you are throwing it up into ridges. If this has not been done, and still here you are at the beginning of March, with spade in hand, and a bag of peas for planting lying before you, you must make the most of it for the time. If your garden is rich, this will be done by marking out the drills, and sprinkling along them a light dressing of leached ashes, (about half as much as will fairly hide the soil in the drill,) covering this with a little soil, and planting the peas upon that. If your soil is poor, dig in a good dressing of any manure you can get—even fresh stable manure—over the whole ground, before you plant the peas. Or, if manure is scanty, then mark out the drill, lay a dressing of manure upon it, and turn it under half a spade deep—smoothing all, and planting over the manured furrow in the common way.

"And what is the common way," somebody asks who never planted a pea in his life. It is as simple as ruling a copy book. You have only to mark off the newly dug ground into straight lines, (two and a-half feet apart, if you are planting early peas, or three and a-half if late ones,) open a drill about an inch deep, with a hoe, along these lines. Then drop the peas in this drill, about an inch apart. Some persons plant only a single line of peas in the drill, others make the drill as broad as the blade of the hoe, and scatter the peas an inch apart throughout the whole—and I recommend the last way as giving the largest crop. Of course, you must have such a thing as a garden line, to make a *straight* drill—for straight lines in the kithen-garden give it as much a look of neatness and order, as they do in the copy book. Having covered the peas, by drawing over them with the hoe all the earth that you pushed aside to make the drill, you have nothing to do but wait till they come up. When they have grown four or five inches high, and begin to put out their little feelers, or tendrils, you must provide something for them to catch hold of, either in the way of sharpened sticks, usually called "pea brush," or by stakes driven down every ten or fifteen feet on each side of the drills, with lines of twine stretched from one to the other. Either makes a good support, but the branchy pea-brush is the best, because the most like nature's way of allowing vines to run over a bush. When you stick the peas, you must loosen the soil well, and draw a little up on each side, to help keep up the vines.

No doubt you expect me to tell you which are the very best peas for your own garden, for you have been puzzled, I dare say, by the many new and old names that you see in the seedsmen's catalogues. I will be glad to do this, for I have tried many of them, and am content with *three;* which, indeed, I think will give you the topmost flavor of this vegetable, as well as the most reliable and surest crops.

First then, *Prince Albert*, for the best *early* pea; second, the *Champion of England*, for the best large pea; and third, *Knight's Tall Marrow*, for the best summer crop.

Prince Albert is a variety of the old "Early Frame," or "Early Washington," of the same habit and flavor, (but rather more dwarf,) decidedly earlier, and I think a better bearer. At any rate, after trying it along side of the Early Frame, and Early Charlton, Cedo Nulli, and four or five others, for three years, I have given up all others as supplanted by the Prince Albert—now pretty generally admitted to be the best early pea.

Champion of England is a first rate marrowfat pea—the best of its class—and the very best large pea—tender and very sugary. It grows about three and a-half to four feet high, is a fine healthy plant, and bears most abundant crops. Planted at the same time as the early peas, it is fit to gather about three or four weeks later. The very large peas it bears are slightly shrivelled, and of a bluish cast in the dry state. If you are to have but two peas, this and the Prince Albert are the sorts for your money.

Knight's Tall Marrow, is the best of the tall late peas, bearing a long time, and giving a good crop. It is some objection to this sort, that it grows six feet high, and requires more room and pains in staking, than *Knight's Dwarf Marrow*, but it is a better and more prolific pea in strong soils. I am content with the *Champion of England*—a pea of the same class, and, therefore, should only cultivate this for variety, and for its being a little later. The Waterloo is something like it, but no so good.

Every body knows how to cook peas, or at least every body thinks so—and every body *boils* them. That is excellent, but by no means the only way to taste this vegetable in perfection; an Old Digger may not be supposed to know much about cooking, but in fact no place lies so close to the kitchen as the kitchen-garden, and it must be a dull digger who does not know something of what the cook does with his "truck." So I will tell you that the neatest little dishes that any cook ever sends to the table, are very small joints of lamb or veal, or perhaps a pair of spring chickens, *stewed* in a close pot or stew-pan very gently, over a slow fire, for two or three hours, till quite done, *with peas*;—butter, pepper, and salt, being added, of course. The juices of the meat penetrate the peas, and the flavor of the peas is given to the whole dish, so that I doubt if there was more savory dishes among the flesh-pots of Egypt, than one of these stews. These are the dishes for the dinners of small families, instead of the eternal steaks and cutlets, more than half of the time *fried* instead of broiled, that stare us in the face, "year in and year out," and which nobody can eat for a long time, without a fit of indigestion, unless it be some one who lives out of doors pretty much the whole time, and becomes as hardy as,

Yours, AN OLD DIGGER.

Horticultural Societies.

MASS. HORT. SOCIETY.—At a recent meeting of this Society, Mr. Cabot, from the committee for establishing premiums for 1851, reported a list amounting to $2,200, which was adopted and ordered printed. From this list, we select the following "Prospective Prizes," for objects to be originated subsequent to 1846, and which, after a trial of five years, shall be deemed equal or superior in quality and other characteristics, to any now extant.

For the best seedling	
Pear, the Society's large Gold Medal	$60
Apple, do do do	60
Hardy Grape, do do	60
Plum, the Appleton Gold Medal	40
Cherry, the Lowell Gold Medal	40
Tree Pæonia, the Appleton G. M.	40
Herbaceous Pæonia, the Lowell G. M.	40
Potato, the Society's large Gold Medal	60

After a trial of three years.

For the best seedling	
Strawberry, the Lyman Plate	$50
Raspberry, the Bradlee Medal	40
Hardy Rose, large Gold Medal	60
Camellia Japonica, do	60
Azalea Indica, Lowell Gold Medal	40
Blackberry	40
Gooseberry	30
Currant, red or white	30

ALBANY AND RENSSELAER HORT. SOCIETY.—The society met at the State Agricultural Rooms, Feb. 6, V. P. DOUW, President, in the chair.

The Treasurer made his annual report, which was referred to a committee consisting of Dr. Herman Wendell and Mr. James, who reported the account correct.

Messrs. Tucker, Prentice, Menand, Dorr and Kirtland, were appointed a committee to nominate officers, who reported the names of the following gentlemen, who were elected:

President—VOLKERT P. DOUW, Wolvenhook.

Vice-Presidents—Herman Wendell, M. D., Albany; D. Thomas Vail, Troy; E. P. Prentice, Mt. Hope; William Newcomb, Pittstown.

Secretary—B. P. Johnson, Albany.

Treasurer—Luther Tucker, Albany.

Managers—B. B. Kirtland, Greenbush; J. M. Lovett, Albany; L. Menand, Watervliet; S. Morgan, Guilderland; J. S. Goold, Albany; J. McD. McIntyre, Albany; W. A. McCulloch, Greenbush; James Wilson, Albany; E. Dorr, Albany.

Committees for 1850.

Fruits.—Dr. Herman Wendell, Albany, chairman. V. P. Douw, Greenbush; E. Dorr, Albany; B. B. Kirtland, Greenbush; D. T. Vail, Troy.

Green-house Plants and Green-house Flowers.—Wm. Newcomb, chairman. J. H. Willard, Troy; J. S. Goold, Albany; W. A. McCulloch, Greenbush; William Janes, Bethlehem.

Gardens.—Luther Tucker, chairman. B. T. Cushman, Troy, and C. P. Williams, Albany.

Flowers.—Sanford Howard, Albany, chairman. E. N. Pratt, Greenbush; J. McD. McIntyre, Albany; E. Corning, jr., Albany; A. March, M. D., Albany.

Floral Designs, Bouquets, Ornaments, &c.—Stephen E. Warren, Troy, chairman. J. M. Lovett, Albany; Jefferson Mayell, Albany; T. C. Abrams, West Troy.

Discretionary Premiums.—E. P. Prentice, Bethlehem, chairman. D. T. Vail, Troy; Wm. Cooper, Guilderland; Jacob Henry, Watervliet; E. E. Platt, Albany.

Essays and on Establishing Synonyms of Fruits.—Dr. E. Emmons, Albany, chairman. Amos Briggs, Schaghticoke; Sanford Howard, Albany; John H. Willard, Troy; A. T. Richards, West Troy.

Vegetables.—R. F. Johnstone, Albany, chairman. Dennis Belden, Troy; Dr. John Wilson, Bethlehem; Samuel Morgan, Albany; Wm. S. Shepard, Watervliet.

Arrangements for Exhibitions.—J. McD. McIntyre, Albany, chairman. Sanford Howard, Elisha Dorr, J. Dingwall, Albany, D. D. T. Moore, Watervliet; William Thorburn, James Wilson, Erastus H. Pease, Albany.

GENESEE VALLEY HORTICULTURAL SOCIETY.—At the annual meeting of this Society, held at Rochester on the 3d Feb., Jason W. Seward, Esq., was appointed chairman, in the absence of the president.

The minutes of the last annual meeting were read and approved. The report of the Treasurer was also read and approved, showing a balance in his hands at the close of the year of fifty-six dollars. The Society then proceeded to the election of officers and committees for the ensuing year, whereupon the following gentlemen were elected:

President—LEVI A. WARD, Rochester.

Vice Presidents—Mathew G. Warner, Rochester; Henry P. Norton, Brockport; J. J. Thomas, Macedon; Asa Rowe, Sweden; S. Donallan, Greece.

Cor. Sec'y—Dellon M. Dewey.

Rec. Sec'y—J. A. Eastman.

Treasurer—James H. Watts.

Committees.

Fruits.—Patrick Barry, M. G. Warner, J. W. Bissell, Samuel Moulson, Alonzo Frost, Jas. Buchan, John J. Thomas, Jas. C. Campbell, Elias Pond, Isaac Hills, W. R. Smith, and L. B. Langworthy.

Trees, Shrubs and Flowers.—Jno. Gray, Jas. M. Whitney, L. Wetherell, Francis Brown, Jr., and H. Billings.

Vegetables.—Jason W. Seward, James P. Fogg, John Rapalje, James Vick, jr., and James Buchan.

Botany.—L. Wetherell, C. P. Dewey, Geo. H. Smith, J. W. Seward, and C. M. Booth.

Entomology.—L. Wetherell, and J. W. Seward.

Executive Committee.—Levi A. Ward, Mathew G. Warner, Patrick Barry, John Grey, Jason W. Seward, and L. Wetherell.

On motion of J. W. Bissell, a committee of six were appointed by the Chairman on the part of the Society, to co-operate with the Executive Committee of the State Agricultural Society in making arrangements for the next State Fair, and especially to arrange the "Floral Hall."

The Chairman announced the following gentlemen as such Committee:

Geo. Ellwanger, J. M. Whitney, H. E. Hooker, C. J. Ryan, Joseph Frost, and R. Donallan.

Mr. J. W. Seward presented specimens of a new variety of Potato, a seedling of Mr. H. N. Langworthy of Irondequoit, which has been very successfully cultivated for market for two or three years past, by Mr. Mandeville, of Irondequoit. After some remarks by Mr. Seward and others, it was referred to the committee on vegetables to give a name to said potato

Mr. J. W. Seward, the special committee appointed at the last annual meeting, for the purpose of procuring members to this society, and soliciting the co-operation of our citizens in its behalf, having made his report, was reappointed as such committee, together with Mr. W. C. Bloss, for the ensuing year.

On motion of Mr. P. Barry, the thanks of the society were presented to Mr. J. W. Seward for his successful efforts as such special committee during the past year.

The thanks of the meeting having been presented to the Hon. Levi A. Ward, for a basket of very fine fruit furnished for the use of the society this evening, the meeting thereupon adjourned. J. A. EASTMAN, Sec'y.

HORT. SOCIETY FOR THE VALLEY OF LAKE CHAMPLAIN.—At a convention held at Burlington last month, a Horticultural Society for the valley of Lake Champlain, was organized, and the following officers appointed:

President—Rev. JOHN WHEELER.

Vice Presidents—David Reed, Chittenden county; Rowland T. Bobinson, Addison co.; M. F. Palmer, Franklin co.; Buel Landon, Grand Isle co.; John W. Baily, Clinton co.; C. M. Watson, Essex co.

Sec'y—Dr. Wm. C. Hickok.

Treasurer—Prof. J. Chaney.

Standing Fruit Committee.—Jonathan Battey, Jasper Curtis, Albert Carpenter, C. Goodrich, Prof. J. Torrey.

Prof. of Botany.—J. Torrey, D. D.

Prof. of Entomology.—Rev. Z. Thompson.

Prof. of Horticultural Chemistry.—Rev. John Mattocks.

Domestic Notices.

FRONTISPIECE—VINERY AT MEDARY.—Our vignette this month, is a very accurate view of the vinery at Medary, the country seat of HARRY INGERSOLL, Esq., near Philadelphia.

We saw the vinery last autumn, just after its completion, and it struck us that in size and proportion, it might be taken as a *model* for this kind of structure for the amateur's garden, or for a gentleman's residence, where only a moderate supply of grapes is desired—since it would afford without fire heat a sufficiency of delicious foreign grapes for the use of the family. Its light and elegant appearance, and the simplicity and neatness of its construction, recommend it to the eye as an agreeable feature in the fruit-garden.

The plan and construction of this building are substantially that contrived and carried out on a larger scale by Mr. VAN RENSSELAER, in his vinery at Clinton Point, on the Hudson, and an interior view of which we gave in vol. iv, p. 178.

We add the following note from Mr. INGERSOLL, explanatory of its dimensions and exact cost, for the use of any of our readers about building vineries,* and we have the promise of some detailed drawings of another building of this kind near Boston, which we hope soon to present to our readers. ED.

MY DEAR SIR—I wish to redeem my promise to give you the exact cost of a moderate sized vinery, on the plan of that of Mr. Van Rensselaer, your neighbor on the Hudson.

The building is 43 feet 6 inches in length, by 18 feet wide, and fourteen feet high.

The materials used by the carpenters, including iron work, cost,	$185 00
Carpenters' labor,	200 00
Glass,	90 00
Painting and materials,	28 00
	$503 00

I may mention that all the materials are the *best* that could be got. And that the work was done by city mechanics at *city prices*.

The cost of making the borders, which are each 18 feet wide by 3 feet deep, according to your instructions, and altogether outside the house, must vary so much that no accurate estimate can be given. Mine cost very little; all the matters, (except the ground bones,) used in them—the leaf mould, decomposed sod, and manure—were collected about the farm; and the labor was done by the gardener and other people at convenient times. Yours sincerely, HARRY INGERSOLL. *Bristol township, Philadelphia Co., Jan.* 22, 1851.

* A carpenter in our neighborhood offers to contract to build vineries like this for $10 the running foot.

CLIMBING PLANTS—GOLDEN TRUMPET FLOWER.—I do not agree entirely with your friend the English Landscape Gardener, that we are an ungrateful people—ungrateful for our rich gifts of native trees and plants. We do not plead guilty to ingratitude. Ignorance may be our misfortune, but ungrateful we are not. Show us how we ought to evince our gratitude—point out the object that would not forget the good we bestowed on it—name the individual that would do credit to our adoption; and Americans will be found as ready to bestow on them as high a patronage, and to estimate as highly as the most antique nation under history the duties which that patronage and adoption involved. We do not know what to be grateful for. Let us once understand *that*, and *then* judge us.

The English *ivy* is indeed a noble plant. We have no substitute. There is none. It has a peculiar charm of its own which no other plant possesses. In its historical associations it is unrivalled,—in its poetical expressiveness it has no compeer, and in its relation to all the romantic past, it speaks forth volumes where any other plant would be speechless. Who that has travelled in Europe—no matter how many years may have since elapsed—can look upon an ivy in America without being easily led back in imagination or memory to the old ruined castles, palaces, and abbeys around which gathers the history of those foreign lands? For my part I can seldom look upon the magnificent robe of ivy which envelopes the old dwelling of that great botanist BARTRAM, (from whence I write these lines,) but I can almost fancy that I see a host of grim warriors in arms

and armour, assembled within its walls, with their high head-dressed dames, in hoops and furbelows, or, with a little more stretch of fancy, see the bare headed and shoeless sons of the cloister assembled to distribute their morning alms in the old front portico. What substitute can replace this? We must first change the whole face of history, before we can answer that. But laying aside its historical, poetical and domestic associations, and taking it up only as a decorative plant, what have we? To place the five leaved or Virginia creeping ivy (*Ampelopsis hederacea*, or *quinquefolia*) in competition with it, is to set off "hoddin gray, and a' that" against "purple and fine linen." The Virginia creeper may *do*—just do, to cover the bare walls of a building,—but as a *substitute* for ivy, no, never! Its bald, cheerless, wintry aspect at a season when the evergreen, rich, warm-looking ivy has its sweetest charms, will ever make the comparison an unfavorable one. I would prefer the Golden Trumpet flower—(*Bignonia capreolata*,) to the Ampelopsis. Being a native of the southern part of Pennsylvania, and of Virginia, it would probably be hardy a considerable degree farther north. It is indeed a beautiful evergreen creeper. Its pendant *secondary* branches are *so* graceful, that I know of nothing to compete with it in its sphere. Those who are unacquainted with this plant cannot conceive how much it deserves to be loved and admired.

The characteristic expression of gratitude and affection for which poets have made the ivy so emblematical—clinging as it does with a feminine fondness to some fatherly oak which supported it in infancy,—and encircling in its arm-like folds the perhaps now decaying form of its early protector—is more appropriate to this plant. Indeed, if I were a poet, I would conjure up in my imagination a grove expressly to introduce it. I would see it running wildly over a rustic bower, now clinging to some rugged grapevine, now sipping with the ends of its drooping branches, the crystal waters of a winding streamlet which should run at its feet. And then its beautiful flowers, like golden cups, which would admit a gaze at them long enough to lead the imagination to the belief that they were the drinking vessels of the fairest nymphs—the dryads of the woods, and the naiads of the stream. If you visit our fair city soon, and have time to make us a visit, I will introduce a specimen of this vine to your notice which shall warrant all that I have said of it. It is not a neglected plant—it is an unknown one. Although described in the oldest books, it is seldom seen. I believe the only plant that ever I saw of it in England was at Col. Vernon Harcourt's in the Isle of Wight, where it was received direct from Montreal with other hardy things in 1838—but I feel assured that I will yet see the day when the Golden Trumpet flower (*Bignonia capreolata*) will be as popular and as common both in this country and in England as the ivy now is—not as a substitute or competitor—for that can never be—but as a comrade and welcome companion. Yours very sincerely, Thomas Meehan. *Bartram Botanic Garden, Philadelphia, Jan.* 10, 1851.

[We saw the very plant of the Golden Trumpet flower which our correspondent describes, 5 or 6 years ago, at the Bartram Garden when it was in full bloom. It was then one of the finest climbers we ever beheld, and we immediately ordered a plant of it for our own garden where it is now growing well. The foliage is evergreen and handsome, but the flowers are not so fine here as in Philadelphia. It is, certainly, a climber worthy of being more generally known. Ed.]

Random Notes of a Winter's Evening.—With the comparative leisure of winter, is it not well to take a retrospective glance at what has been accomplished; to be pleased with what has been well done, and to compare notes of what is in progress—*Horticulturally*, of course—your Journal being the *vade mecum* for that subject.

The season has been one of great fruitfulness; the granaries of the industrious farmer are richly stored with all the cereal and other crops, both in quantity and quality, and the horticulturist's heart has gladdened at the profusion and richness of the bounties set before him. Never, within the recollection of the *oldest inhabitant*, has there been such an universal crop, and so universally well ripened. Strawberries, cherries, peaches, plums, apples and pears, with all the minor fruits and escu-

lents have been excellent; and bating the occasional loss by insect depredations, and a touch of a nameless blight, all have reaped a *quid pro quo* for labor bestowed. For one, I can truly say, that it has been a season of peculiar pleasure and satisfaction, although physical labor has been more severe than for forty years before.

Permit me, in *usus loquendi*, to say a word or two to those who like myself have been

> Pent up in cities' murky gloom,
> Breathing infection,

and to lure them into rural places, where alone can health and cheerful mind attain the acme of God's paradise on earth.

For several years past my passion for gardening has been confined within narrow bounds. Fruits, flowers, vinery and conservatory, have occupied but a few perches of land. Lately, having purchased a suburban residence of some five and twenty acres, within two miles of the city, I have, thanks to a kind providence, learned to walk again—aye, and to work too—enjoying the elastic influences of healthful exercise, with the accessories of a sound and natural appetite. Here we enjoy the luxuries of home-made butter, fresh eggs, wholesome and nutritious vegetables, luscious fruits, and a happy thankfulness that our lot has been thus cast in pleasant places.

My lands had once been in a high state of cultivation, but for some years past most shamefully abused. Burdock, and a host of mongrel grasses, weeds, grubs, &c., had taken possession. The trees were mossy, and had been starved into bare existence. What a picture! and yet, who would not envy my position? Believe me, and I doubt not you would respond to the truth, that to create, to replant, and to rejuvenate such a place, watching grateful earth put forth her latent energies; to guide and direct each branch and twig, and turn the neglected sward into velvet lawn, is productive of far greater happiness to the lover of rural labors, than the possession of a finished place, where nought was left to do.

Most fortunately the soil, which varies from sandy loam to a stiff clay, had never been stirred beyond the depth of a few inches, and my design in these desultory ramblings, is to relate some of my experiments and their results.

Intending to appropriate the larger portion of the plot to fruit culture, the first instrument purchased was a subsoil plow. This tool strikes at the root of all evil, and has, wherever used, done wonders. As Rome was not built in a day—for want of time—neither have I subsoiled all my land; yet desirous of testing the efficacy of each experiment, I applied it to alternate *lands*, and with the aid of the common plow, I have thoroughly worked several acres, from 17 to 20 inches in depth. Thus, with the design of getting the soil in good *heart* and tilth before planting, I put in root and hoed crops.

The surface was manured in this wise:—50 loads stable manure, 10 loads leached ashes, 10 loads limed hair from the tannery, and 100 bushels rectified charcoal per acre—all of which was well and thoroughly incorporated to the depth of eight or ten inches, with a scattering of air slaked lime upon the surface; the latter more particularly to meet the appetite of the grubs. The result has been, that potatoes, corn, cabbage, carrots and oats, were in weight, as two to one in favor of the subsoiled land. These crops never showed the least wilt in drouth, nor lost color until the ripening process.

How little is known of the true value of this limed hair and refuse charcoal—articles readily procured in large quantities, in nearly every town, for the carting, and which are frequently buried in sunken holes to get rid of them. I consider the hair nearly as rich in the same constituents as ground bones, (which, with us, are very expensive,) containing largely, nitrogen and ammonia, besides being rich in phosphates, and withal readily decomposing, not a vestige being left in its former state at the close of a season. For grape and fruit culture generally, it is invaluable.

Of charcoal, enough has been said through the pages of the *Horticulturist*, to assure the most skeptical of its intrinsic virtue. But, says a novice, *your* charcoal is ruined by the uses to which it has been applied; in rectifying spirit, it is so perfectly changed by the absorption of the essential oil, that it has lost all power of farther absorbtion as a deodoriser? This is nonsense in the extreme. Charcoal is indestructible nearly, and loses none of its valuable properties to the gardener by such use. With

experiments in disinfecting night-soil, and fetid chamber slops, in warm weather, I find it puts a *quietus* upon the odors most perfectly—and for this purpose fully equal to fresh burned coal. Try it, ye skeptics, who profess to delight in rich foliage and luxuriant growth.

Wood ashes, leached or fresh, is another invaluable auxiliary to the tiller of the soil; and remarkable is it, that the farmer and gardener will, even now, sell his ashes at a few cents a bushel, in exchange for soap, at a loss of a thousand per cent! As a single fertilizer for tree culture, it is the most valuable of any.

In my orchard of an hundred rather old apple trees, whose beauty had departed, and whose fruit was bitter, and miserably poor, I have already wrought a favorable change. Around each tree the soil has been trenched, two feet deep by two feet wide, at from six to eight feet from the bole; the roots cut off smoothly with a well ground spade, and the trench filled with a compost of chopped sod, hair, leached ashes and chip manure, well incorporated, scattering the soil taken out upon the surface. The trees were then somewhat pruned and grafted; the loose bark and moss carefully scraped away, and a wash of whale oil soap, sulphur and sand, put freely upon them. The grafts took well; the trees put on a new dress, and already have they assumed a healthful vigor. What they will attain by another season's growth, we can readily imagine. This orchard was well manured, deeply plowed, and put into potatoes which turned out well.

An experiment made here, with salt, in potato culture, may be useful to record: It has been contended that common salt, both was, and was not, valuable to the growth of this crop. I experimented somewhat largely, and offer the results:

Upon 100 sets, I placed directly in the hole, when planting, a gill of common salt, which killed about fifty per cent. To another 100 sets half a gill; all came up and grew. Upon another 100 sets none; the tubers and haulm showed no observable difference among the different lots. To another 100 sets that were treated each with half a shovel full of leached ashes, a marked difference was readily seen; they were not more vigorous, but better colored, and yielded better. As connected with this experiment I would remark that *flat* hoeing, and not hilling *up*, is far preferable for this, and all other crops requiring regular moisture at the roots; indeed, it is one of the most mistaken dogmas of the age, that garden beds are universally made high, and curved, or rounded on the surface, and the paths or walks left sunken, when in truth, the reverse should be the case. Our summer showers are few and far between, and should be carefully caught upon the spot where they fall, instead of allowing them to wash the surface of its fertility, to be carried by the *paths* to some neighboring brook, or, perchance, enrich some neighbor's low land. In evidence of this, I would adduce the fact, well known to observing persons, that the soil under a tree of ten or more inches in girth, is never moistened beyond a few inches in depth, from the middle of May to September, that is from the opened leaf to the *fall rains*. Is it not reasonable then, that in our climate we have no spare moisture. Did I dare offer an immature opinion, I should attribute to this fact the blight of pear trees, &c. In the observations I have made, the trees thus affected have in all cases been in a light porous or shallow worked soil, and affected at a time when evaporation is at its greatest point, the roots having exhausted the surrounding moisture in greater ratio than the supply. In deep and well trenched soil, with a suitable *mulch*, I have never yet seen a blight.

Pear *seedlings* in our neighborhood are generally considered a failure, losing their foliage early and suffering greatly from blight—while mine, on the contrary, grown on subsoiled land, well dressed with ashes, hair and scoriæ have flourished finely, ripening well their wood, and had not, up to the 5th of December shed their leaves. They were then covered by a heavy fall of snow. Of several hundred pears from the yearling to the bearing, which I planted early in the spring in similarly prepared land, each having a mulch of spent tan, not an instance of blight has occurred; while a neighbor is deeply sorrowing the loss of *forty* beautiful trees. It may, I feel assured, be a settled axiom, that the pear can not be successfully grown on light soils, neither will they thrive without that specific aliment, well incorporated in the soil, which goes to make up the wood.

Vegetable physiology fully demonstrates this, and from it we may learn that all *high bred* and hybrid plants require a greater degree of care in their culture, which includes both food and pruning. In especial evidence we might adduce the foreign grape, the strawberry, and the modern pear, which, under the management of different individuals, even in the same locality, show as great dissimilitude as it is possible to conceive.

While on the subject of pears, may I ask you, or your correspondents to settle the disputed question of legitimate Quince stocks—*must* they as a *sine qua non*, be of the *Angers*, upright, pear, Portugal or orange variety? Pray clear up this matter—as I design to plant yet some two thousand more dwarfs, I feel some interest in the solution.

A portion of my plantation consists of an hundred cherries, mostly beginning to bear; and also an acre of strawberries, among which, are the famous *Scheneike* seedlings.

Peaches in our locale, in open position, are a doubtful crop, and yet in many of our city gardens—warm, and sheltered, fine specimens are annually grown. Having a soil peculiarly adapted to the peach (an old sod sandy loam on a limestone rock) and elevated beyond any adjacent point for several miles, I have thought it worth the experiment, to plant seventy-five trees, of the hardy varieties; selecting those on plum stocks, as vastly better suited to our climate, aside from the protection by this means, from the peach worm. Ashes, lime and hair are my specific fertilizers for this fruit—I give a shovel full of each, well incorporated in the hole, with an additional shovel full of ashes and charcoal as a top dressing, and finish by raising a mound a foot high as a stay for winter blasts, and the depredations of field mice.

How unfortunate it is that nurserymen in packing this tree, so perfectly denude them of their lower branches; these, to me, constitute their best portions, to renew which, requires severe heading back. The peach to be successfull, should be kept low, and bush like. They then shade the ground, answering the purpose of a mulch. The stocks are thus kept free from gumming, are easily reached for summer pruning, and the fruit is readily gathered.

Of plums I am planting an hundred trees, notwithstanding the hue and cry about the curculio. In this matter I have had some experience, and with all due deference to the "*instincts*" your correspondents so kindly speak of, I claim to have the secret of success! For ten years, I have tried with faithful care, the various recipes promulged, such as sulphur, salting, picking up, dung heaps, strong odors, and lastly *manipulation* (the grand secret,) viz: catching all the *he ones* and shortening the proboscis. From half a dozen trees, planted fifteen years ago, full half a mile from any other, and yearly loaded with fruit to be consigned to the piggery, I have by my method, for several seasons past, obtained annually, fifteen bushels of perfect fruit. That this insect is migratory, and fleet of wing, there can be no doubt, and neither is their presence confined to plum trees. I have found them in the woods in great abundance, on the Manitou Islands in Lake Michigan, and other places where no plums are to be found. The paving process is a failure, the trees to over-hang water an absurdity–and although catching them may seem a "*puttering*" job, let me assure you it is a safe one, productive of much fruit. My method has been from the setting of the blossom, to spread sheets under the tree, and jar and shake, with a properly arranged hooked pole. This should be done early in the morning about sunrise, and continued at frequent intervals, say three or four times per week, until the fruit is ripening, when *instinct* tells the creature (should there be any left) that it is too late to penetrate the pit. To induce watchfulness I have paid a penny each, and frequently have they been captured in the act of puncturing the fruit. Occasionally from forty to fifty were caught per day, and yet even at these prices I have been the gainer, as the fruit, from the general scarcity, would readily command from three to four dollars per bushel.

Hedging in this vicinity is almost unknown, if we except the Privet, which is only suitable to define paths, or form screens around buildings.

Hedges proper, however, should be formed of that material which shall fully answer the double purpose of fence and durability—creating a perfect barrier against man and beast, and which shall be ornamental, free from diseases,

and the attacks of animals and insects. These are highly important considerations—and to me peculiarly so. At the present I am trenching for three hundred rods of hedge. The Osage Orange is my favorite, but I fear its durability for that purpose in our neighborhood. Of several hundred plants which I grew from seed, and bestowed upon friends in this vicinity, I find them, as also my own, more or less winter killed when unprotected, besides being subject to girdling by field mice, of which we have more than a share. It makes, however, the most beautiful hedges, in every point of view, far handsomer where it flourishes, than England's Hawthorn, which fades under our bright sun. The Berberry has been highly spoken of for hedging, but not having seen either hedge or testimony, sufficiently satisfactory, I remain in doubt. A *side* nurseryman last year advertised largely, a stock of this plant for hedging, but sending an order at once, for a thousand plants, they were all *just gone!*

Some years since, I induced a friend to try the indigenous thorn so common in our woods. Nearly half a mile of hedge was made, and does pretty well, but due care was not taken in selecting the plants sufficiently small. The larger ones being stunted by transplanting, gaps were made difficult to repair. Thus, after all that has been written on the subject, safety seems confined alone to the Buckthorn. Your own testimony has resolved me to plant largely of it. I had feared that animals would browse upon it, but you say, vol. 1, p. 348, "its leaf and bark are offensive to insects, and the borer will not touch it", which I trust may be extended to graminivorous animals.

A thoroughly protective hedge, or an uncouth looking strong fence, is absolutely necessary to the orchardist, if he may derive either pleasure or profit from his trees. Climbing a a fence, or pushing aside a picket, and pelting the choice apples, pears, &c. from the trees, is, I am sorry to say, not considered generally a misdemeanor, or theft, at the present day. And a peremptory order to desist such intrusion, brings upon the owner the anathema of "how *mean!*" The venerable D. Thomas remarks, "no insect, no birds and no malady among fruit trees have discouraged pomologists so much as the depredations of our own species," and as an antidote urges "that all persons should be induced to grow their own fruit, as he never knew a boy to steal fruit, whose father raised fruit himself," to which we would respond Amen. W. R. Coppock. *Longsight Place, near Buffalo, N. Y., Jan. 1, 1851.*

Notes of the Season.—The new year opened with fine sleighing, a cool healthful air, and smiling, but not a very warm sunshine. The southern sky looked soft and agreeable enough for September, in the early part of the day, but before night, the north wind arose, and the loose snow was hurried in wild confusion into drifts. The morning of the 2d, was cool, and as some would say, the air was fine and bracing through the day—5th, mercury at sunrise, only 2° above 0, and did not rise higher than 10° through the day—6th, 22° at sunrise, and reached 40° in the afternoon. On the morning of the 8th only 2° above 0, but moderates fast and continues very fine for ten days, the mercury frequently being above freezing at sunrise. On the morning of the 19th, it stood 4° below 0, and rose only to 18° above through the day; after which it continues mild and agreeable. The 23d was a fine smoky day, and the snow wasted under the influence of the sun. The morning of the 24th was noted for a remarkable white frost, which curiously ornamented the spires of grass and branches of trees, especially on lowlands, beside streams, where the feathery chrystals hung in rich and varied beauty, and gave under the influence of the sun a fairy appearance to the desolations of winter. But the illusion soon melted off, and we found winter yet reigning in its every day costume. Warm weather followed this frost, and in the four following days, the sleighing was nearly used up by sunshine. The morning of the 29th was ushered in by a rain storm with the mercury at 38° and the wind blowing fresh from the south-west. Wind changes to northwest at 8¼ o'clock A. M., and a furious snow-squal follows, continuing until nearly noon. The weather grows blustering through the day. The 30th will long be remembered as a cold, blustering day, made still more unpleasant by the sudden change of temperature. At sunrise the mercury was 8° below 0—at 9 A. M. 6° below—at 3 P. M. 2° below—

at 9 P. M. 9° below, exposed to the full force of the wind. On the morning of the 31st it was 9° below 0—at 9 A. M., at 4 below—at 3 P. M. 4° above 0. It is a very unusual circumstance, and one which I do not recollect to have witnessed before, to experience a temperature below 0 through the day, but here it actually continued for at least 36 hours.

The storms of the month have been few and comparatively light. On the 4th, snow fell to the depth of four inches. On the 9th rain and hail ½ inch. On the mornings of the 16th and 17th, fog rested on the hills and we had very slight sprinklings of rain. The 20th brought a slight fall of snow, and another the 22d. Snow fell to the depth of 1½ inch on the 27th, and the rain of the 29th, was two inches and the snow that followed gave 3 inches. These were all the storms of the month. There were three days only of entire cloudiness—of entire clearness none. In 124 observations the course of the wind was northerly 64—southerly 60.

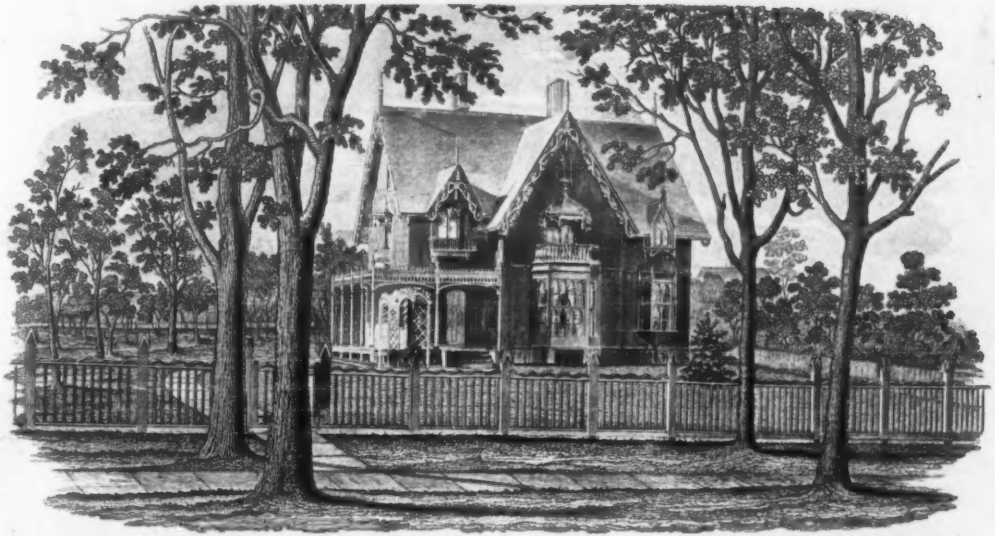
The general temperature of the month was mild and agreeable, and until the sudden change of the 29th, was highly favorable for the fruit buds of the peach, &c. But when we saw the mercury sink 46° in twenty-four hours we must necessarily conclude that it is all over with them for the present year. Such changes are far more fatal in their effects than steady, uncompromising cold weather. This any individual may see from his own liability to take severe colds, contract lung-fevers and other diseases incident to frequent and severe changes of temperature.

Such changes are greatly injurious to domestic animals of all kinds and under the most favorable circumstances, but they are most keenly felt for those which are allowed to shift for themselves in getting protection. How much is suffered by animals and actually lost to farmers by negligence in providing shelter cannot be known. It is no doubt the case, however, that diseases are often contracted by such exposures which are not fully developed until the warm season, and then are attributed to wrong causes. It is certainly a wise policy for farmers to provide good and comfortable shelters for all their animals, and then see that they are housed through the storms, let their mildness promise ever so favorably, for a righteous man will surely regard the comfort as well as the life of his beast. Yours truly, W. Bacon.

Random Notes.—I was much pleased with the communication from your new correspondent Mr. French, and hope he may write often, as it will add considerably to the interest of the Horticulturist. Is there no way to induce "Jeffries" to resume his pen? I feel quite grieved at losing his pleasant criticisms, and have no doubt it would be pleasant to a great many to meet with them again. "W. H." seems to be quite in despair about his plums as well as myself, but I intend planting some where the fowls will have free acess to them, and see what that will do. I hope the "Stowell" sweet corn will soon get far enough south to reach us. It must be a very desirable variety.

Mrs. Bateham's remarks were well worth a place in the Horticulturist, and it is to be hoped they may do good. What a blessing it would be to the country if we had many more of such sensible women. I should like to see a piece of poetry by Mary Howitt, "on the use of flowers," in your columns, as it well deserves a place, but do not like to send it without knowing whether it would be acceptable or not.

We wish to plant two trees in front of our house (a western exposure) that will soon make a shade, and such as are not liable to be attacked by insects. Would not the sugar maple be suitable?—[very suitable.] We have a good many fine roses in an open space in front of our dwelling, but they do not grow as I could wish. What kind of manure had I better apply? The soil is rather light, and I suppose not as rich as it ought to be. [Well rotted stable manure—bury it as deep as you can.] I have succeeded better in raising the Oleander, Azalea, and Daphne from cuttings by placing them in vials of rain water, excluding the air with raw cotton, and keeping them in the window, than in any other way; of course we keep filling the vial as it requires it—as soon as the roots are half an inch long, plant them in light soil. I frequently start roses in the same way. I have planted a few cranberry vines which I intend to keep wet by the waste water from the pump. Think they will do well. [We fear not, unless you keep the pump going.] A Constant Reader. *Maryland, Feb.* 14, 1851.



RESIDENCE OF M. A. BIERNS, WILLOUGHBY ST.